

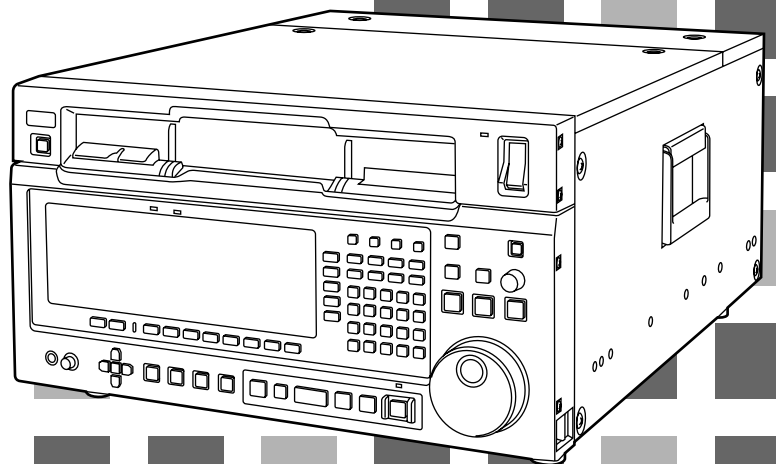
Panasonic



Digital Video Cassette Recorder

AJ-**HD3700H**_{PE}

Operating Instructions (Software)



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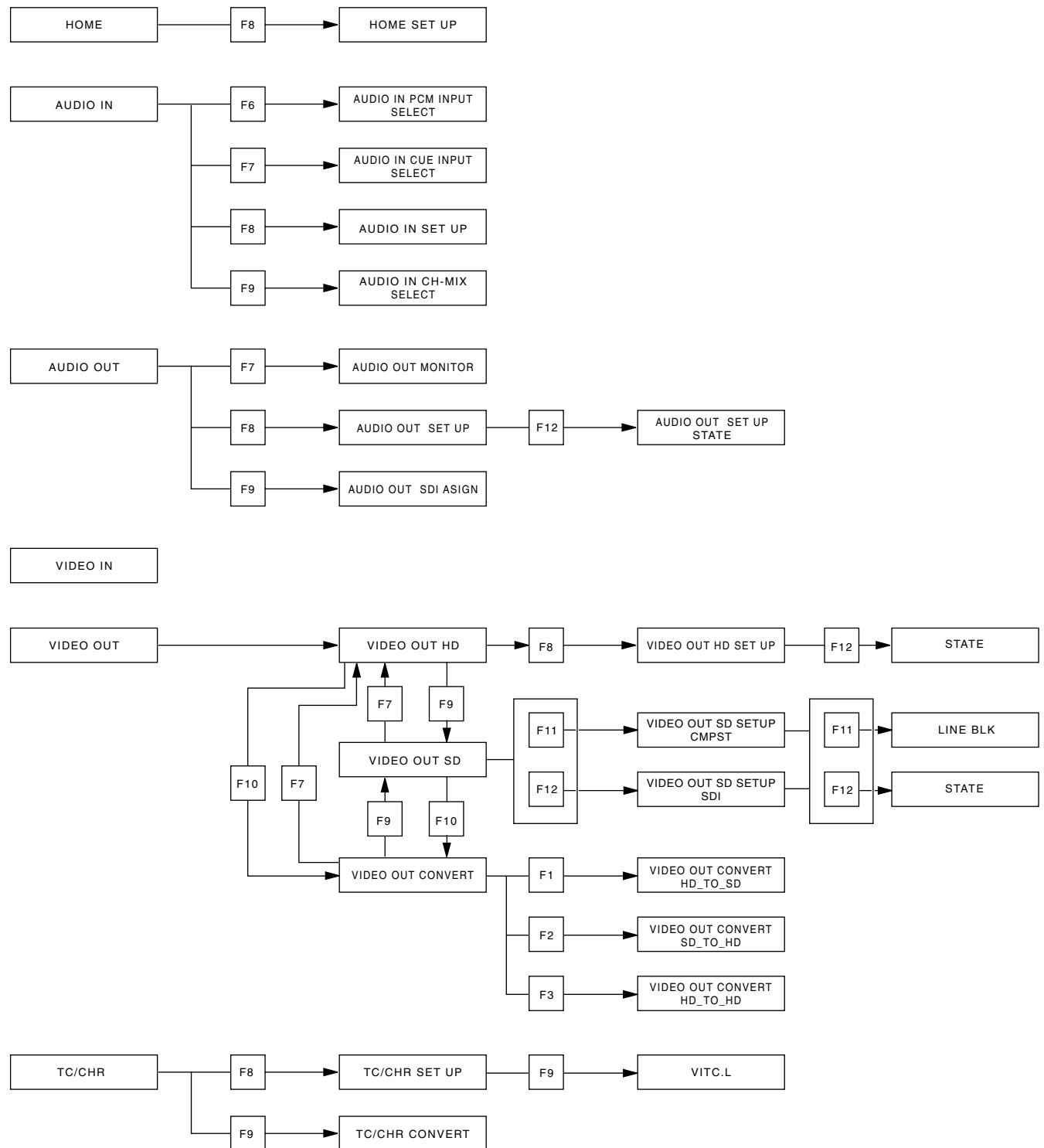
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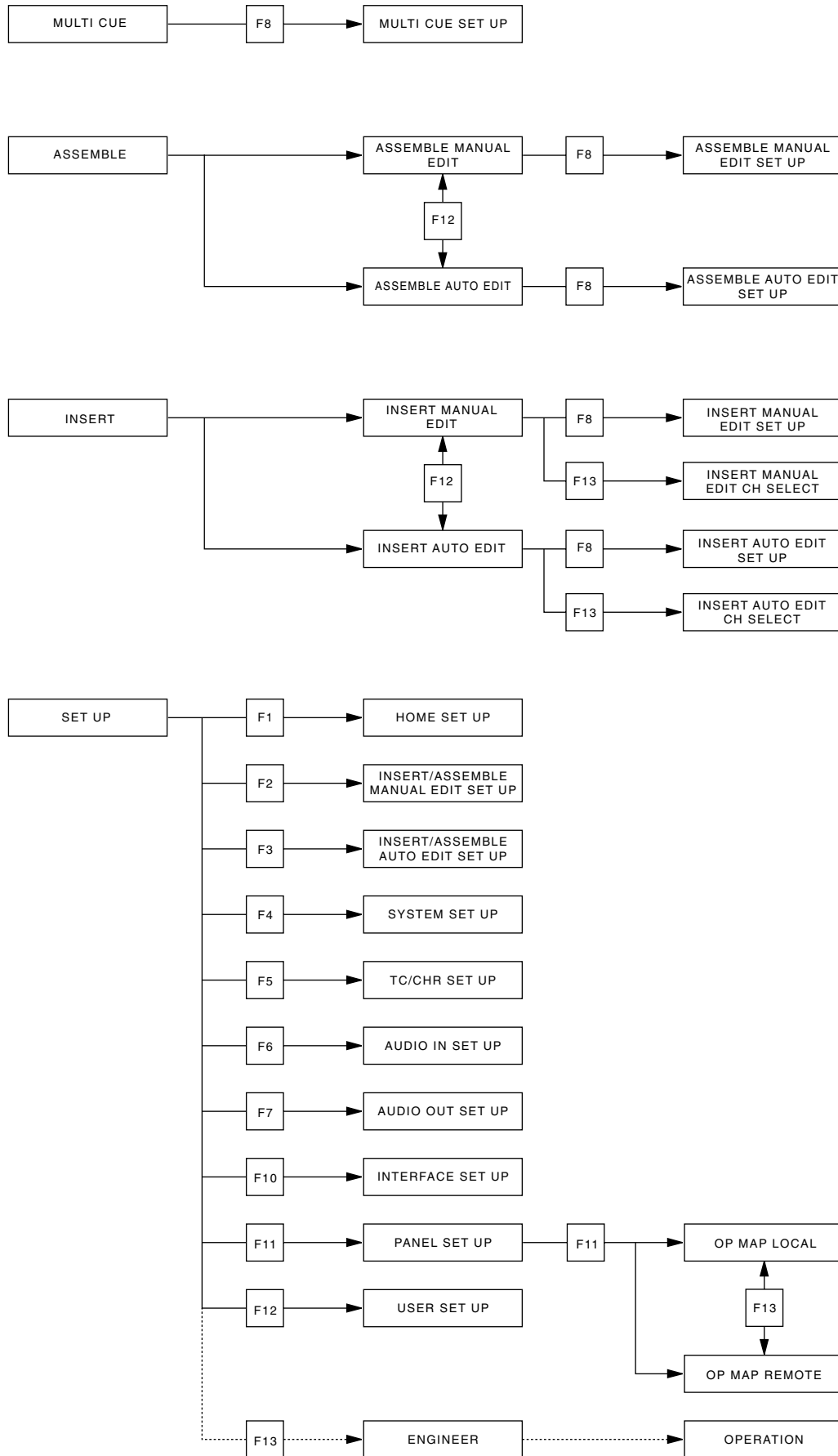
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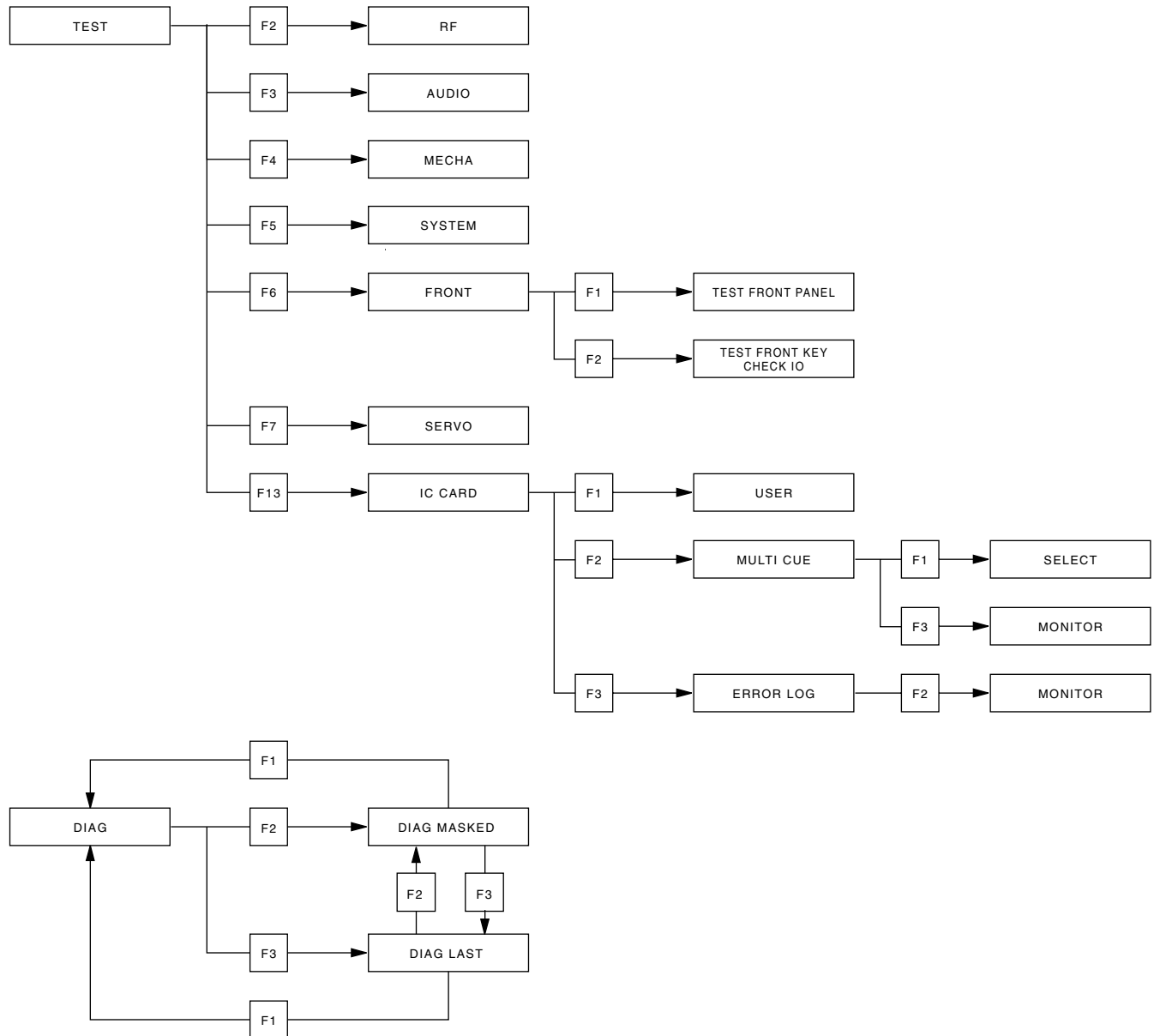
Menu screen transitions



Menu screen transitions



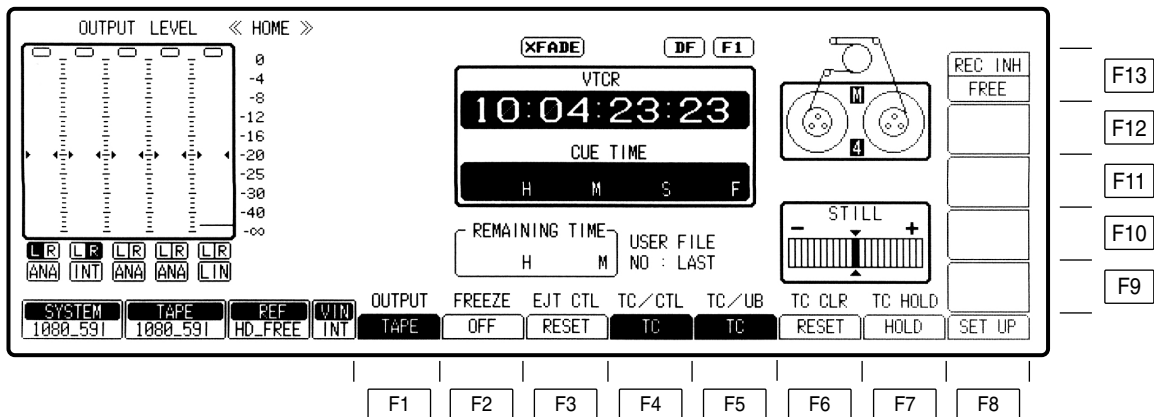
Menu screen transitions



Turning on the power

Turn on the power.

▼
The HOME menu is displayed.



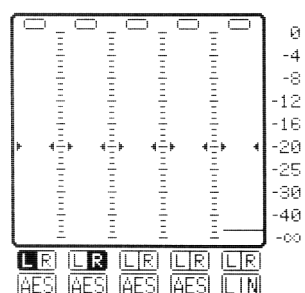
This VTR comes already programmed with menus that correspond to specific operating objectives, and the operations performed on each differ from one menu to another. When a menu is selected using a menu selection button, what appears on the display changes, and the function keys (F1 to F13) also implement the function corresponding to the respective menu items.

SET UP menus are provided in order for the user to have settings on hand for the seldom used functions, etc. among the various menu items.

The HOME menu is provided as the VTR's basic menu. It automatically appears on the display when the power has been turned on. (However, the IC CARD menu will automatically appear if an IC card has been inserted.)

HOME menu displays

- ☐ **Audio signal display area** (Either 8 or 4 channels will be automatically displayed depending on the format used.)



Use this to adjust the level of the input audio signals on the AUDIO IN menu. Alternatively, it is used to adjust the level of the audio playback output signals on the AUDIO OUT menu.

Press the L/R buttons to select the audio channel whose signals are to be output from the AUDIO MONITOR L/R connectors and HEADPHONES jack.

These display the type of input signals of each channel. The F1 (CH-1) to F6 (DIGITAL) [or F1 (CH-1) to F13 (CH-8) for 8 channels] on the AUDIO IN PCM INPUT SELECT menu are selected using the F9 (CH-MIX) key on the AUDIO IN CUE INPUT SELECT menu.

- ☐ **ANA:** Signals from the ANALOG INPUT connectors.
- CH1 AES:** Signals from the DIGITAL AUDIO INPUT connectors.
- ☐ **CH1 SER:** Signals from the serial V/A input connectors.
- ☐ **INT:** Signals from the internal signal generator.
- ☐ **LINE:** Signals from the CUE IN connector.
- CUE MIX:** CH1 to CH8 signals selected by CUE MIX setting.
- ☐ **AUTO:** This is always used for digital channel backup purposes.

- ☐ **Display lamps**



SYSTEM: This indicates the video system format which was set on the SETUP/SYSTEM menu.

1080_59i
525_59i
1080_23psf
1080_24psf
720_59p
1080_50i

TAPE: This indicates the format of the playback tape. "*****" appears in the EJECT mode.

If a section is unrecorded or if the format of a section cannot be identified, the lamp blinks while the display of the format identified up to the section concerned is retained.

1080_59i, 1080_60i
1035_59i, 1035_60i
525_59i
1080_23p, 1080_24p
720_59p, 720_60p
1080_50i

How to display the menus:

- AUDIO IN menu:

AUDIO IN

- AUDIO OUT menu:

AUDIO OUT

- AUDIO IN PCM INPUT SELECT menu:

AUDIO IN → F6

- AUDIO IN CUE INPUT SELECT menu:

AUDIO OUT → F7

HOME menu displays



REF: This indicates the status of the output reference signal which has been selected by the VTR.

HD REF59: HD REF with a field frequency of 59.94 Hz is selected.

HD REF47: HD REF with a field frequency of 47.96 Hz is selected.

HD REF48: HD REF with a field frequency of 48.00 Hz is selected.

HD REF50: HD REF with a field frequency of 50.00 Hz is selected.

SD REF59: The NTSC signal is selected as the SD REF signal.

SD REF50: The PAL signal is selected as the SD REF signal.

HD IN59: The HD serial input with a frame frequency of 29.97 Hz is selected as the REF signal.

HD IN47: The HD serial input with a frame frequency of 23.98 Hz is selected as the REF signal.

HD IN48: The HD serial input with a frame frequency of 24.00 Hz is selected as the REF signal.

HD IN50: The HD serial input with a frame frequency of 25.00 Hz is selected.

SD IN: The SD serial input is selected as the REF signal. (SD IN can be selected only when 525i has been selected as the VTR's system format.)

HD FREE: The HD internal signal generator is used since no REF signal has been selected using the OUT REF setting.

SD FREE: The SD internal signal generator is used since no REF signal has been selected using the OUT REF setting.

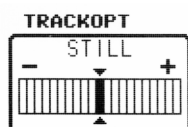
***DUAL:** HD REF47 and SD REF59 have been selected simultaneously.

This setting takes effect when 1080/23psf has been selected as the VTR's system format, AUTO has been selected by the OUT REF setting, and two of the above REF signals have been input.

*This VTR uses the HD REF and SD REF signals as a reference for entering the 24 → 60 conversion inside the unit.

HOME menu displays

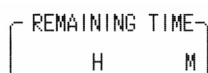
□ Setting mode display area



The displays appearing in this area indicate the modes which have been set.

- CUT:** Appears when the audio cut editing mode is set.
- XFADE:** Appears when the audio cross-fade editing mode is set.
- VFADE:** Appears when the audio V fade editing mode is set.
- INTRP:** Appears when the time code interpolation mode (in which the time code cannot be read out accurately) is established.
- DF:** Appears when the drop frame mode is set.
- F1/F2:** Indicates the field numbers for VITC.
- EMPHASIS:** Appears when pre-emphasis is applied to the audio signals.
- TRACK VAR:** Appears when an adjustment has been made with the tracking deviated from the fixed position.
- TRACK OPT:** Appears when an optimizing adjustment has been made for the tracking.

□ Remaining tape time



This indicates the remaining tape time as the tape travels.

□ User file display

USER FILE
NO : LAST

This indicates the number of file which is called when the power is switched on or the currently called user file. If there is a discrepancy between the contents of the user file displays and even one current setting, "*" will appear in front of the file number.

□ Time code displays



These indicate the time code values.

- CTL1:** Normal control signal
- CTL2:** Control signal (which cannot be reset)
- LTCR:** LTC readout
- LUBR:** LTC user bit readout
- VTOR:** VITC readout
- VUBR:** VITC user bit readout
- TCG:** Value generated by generator
- LUBG:** Value of LTC user bit generated
- VUBG:** Value of VITC user bit generated
- E-TC:** External time code
- E-UB:** External user bit

□ Checking the value generated by generator



Press the INPUT CHECK key. While the key is held down, the value generated by the generator is displayed.



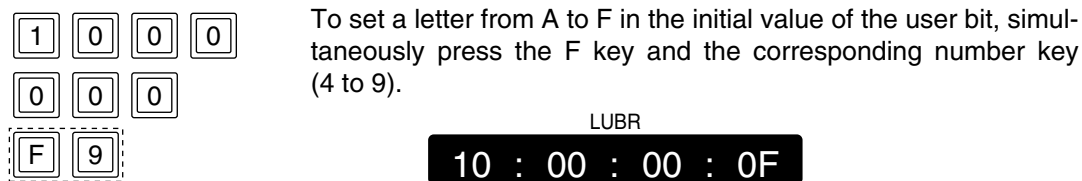
HOME menu displays

□ Setting the initial value for the time code

- (1) Press the center cursor key.
The display now appears in reverse video.



- (2) Press the center cursor key again so that the cursor is made to serve as a column cursor, and then use the number key to input the value.



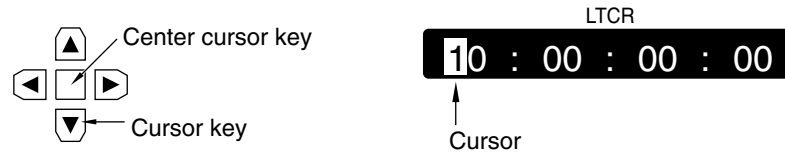
- (3) Press the ENT key.
The cursor is now cleared. (This completes the setting of the initial value.)

- To clear the value entered, press the C key in step (2).
- To check the value which has been input, press the INPUT CHECK key.

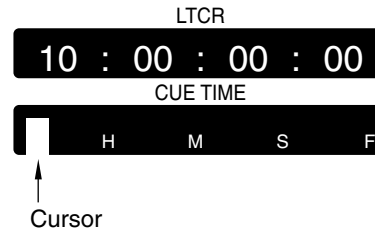
HOME menu displays

□ Setting and checking the cue time

- (1) Press the center cursor key.
The time code display now appears in reverse video.



- (2) Press the [▼] cursor key.
The cue time now appears in reverse video.



- (3) Press the center cursor key again so that the cursor is made to serve as a column cursor, and then use the number keys to input the value.



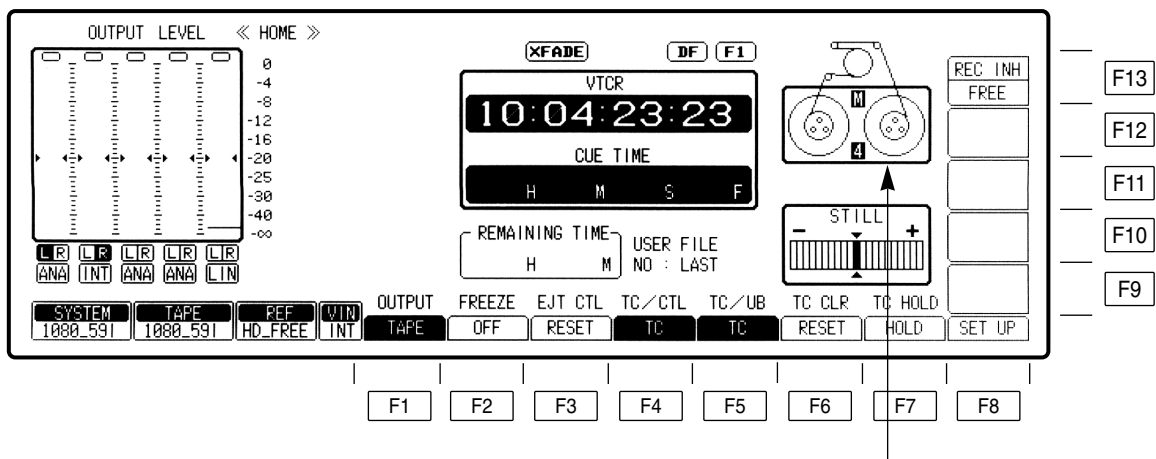
- (4) Press the ENT key.
The cursor is now cleared. (This completes the setting of the cue time.)

- (5) Press the PREROLL button.
The cue time on the tape is searched, and the tape is prerolled for the cue time, after which it stops.

- When the ENTRY button is pressed, the tape's current position is automatically input.
- Pressing the F key and PREROLL button at the same time in step (5) initiates the search operation, and the tape stops at the entered cue point.

HOME menu

This menu is displayed by pressing the following key: **HOME**



4: Cassette tape in the 4-channel audio format.

8: Cassette tape in the 8-channel audio format.

(This display indicates the C bit pin position of the cassette tape.)

If system format does not matched with the C bit pin position of the cassette tape, 4 or 8 display will flash to warn its miss-matching.

HOME menu

Key	Key designation	Description
F1	OUTPUT For selecting the audio/video output signals.	The mode opposite to the current one is established only while this key is held down. (When the key is pressed during TAPE setting, the EE mode is established.) (If this key is pressed together with the F key, the display switches.) TAPE: Outputs playback signal. EE: Outputs the EE system signals. •Valid only in STOP, REC or EJECT mode. Invalid during playback. •This key does not operate during CUE signal output.
F2	FREEZE For outputting the flash freeze frame.	Outputs field memory 1 screen continuously. Flash freeze frame is assumed only while this key is pressed. If this key is pressed together with the F key, the setting can be fixed. ON: Output field memory screens. OFF: No freeze-framing.
F3	EJT CTL For CTL operation in EJECT mode.	RESET: Resets CTL1 when cassette is ejected. Resets CTL2 when cassette is loaded. HOLD: Holds CTL values for both CTL1 and CTL2 when cassette is ejected.
F4	TC/CTL For timer mode switching.	TC: Displays the time code. CTL1: Displays the control signal value. (This can be reset to zero.) CTL2: Automatically resets the control signal value to zero when the cassette tape is loaded. The control signal value cannot be reset after this.
F5	TC/UB For switching the display between the TC and UB values.	TC: Displays the TC value. UB: Displays the UB value. •Valid only when [TC] is selected with F4 key. •Displays the time code readout value during playback. •Displays the time code value recorded on tape during recording. To display values generated at times other than recording, press the INPUT CHECK key.
F6	TC CLR For clearing the TC value. (TCG CLR) For clearing the UBG value. (UB CLR) For clearing the UB value.	Valid only when the TC/CTL key is set to CTL1. RESET: CTL1 time data is reset to zero. Valid only when the TC/CTL key and the TC/UB key are set to TC. RESET: TCG value is reset to zero when F key is simultaneously pressed. Valid only when the TC/CTL key is set to TC and the TC/UB key is set to UB. RESET: UBG value is reset to zero when F key is simultaneously pressed. However, since there are two UBG values, VITC UBG and LTC UBG, they are supported as follows by the TCR settings on the TC/CHR menu. TCR: AUTO Both VITC UBG and LTC UBG are reset to zero. TCR: LTC LTC UBG is reset to zero. TCR: VITC VITC UBG is reset to zero.
F7	TC HOLD For holding the TC value on the display.	Continues to display the time code data which was displayed when the key was pressed. •Press again to release the hold value.

HOME menu

Key	Key designation	Description
F8	SET UP	Transfers the VTR to the HOME SET UP menu screen.
F9–F10	—	
F11	PREAD A* For setting audio pre-read to ON or OFF (SD mode only)	This is used during insert editing in the AUTO or MANUAL EDIT mode when the already recorded digital signals are to be read in advance and used as the editing source. To set the item to ON, press the F together with the F11 or F12 key. To set it to OFF, press the F11 or F12 key on its own. When ON is selected as the setting, refer to the section on pre-read editing (next page). ON: The digital signals are read in advance (pre-read). OFF: The digital signals are not read in advance (pre-read). Simultaneous playback is possible during editing.
F12	PREAD V* For setting video pre-read to ON or OFF (SD mode only).	<ul style="list-style-type: none"> ● If OFF is selected by the F11 or F12 key, vibration may occur when EE has been selected on the STATE screen. (This happens only when the input and output of the same channel have been connected.) ● If ON has been set for either of these items, the up-converter picture will be muted.
F13	REC INH For setting the record inhibit mode.	FREE: Enables recording. NRML.REC: Prohibits normal recording; enables editing. (The REC INHIBIT lamp blinks at long intervals.) ALL: Prohibits all recording. (REC INHIBIT lamp glows.) <ul style="list-style-type: none"> ● The CASSETTE REC INHIBIT mode which is set using the recording inhibit pins on the cassette tape takes precedence over this key's setting.

*The above functions can be set only when the 480/59.94i system format is selected.

HOME menu

□ Pre-read editing

- (1) Set the pre-read function to ON by pressing the F key and F11 key (PREAD A) or F12 key (PREAD V) together.

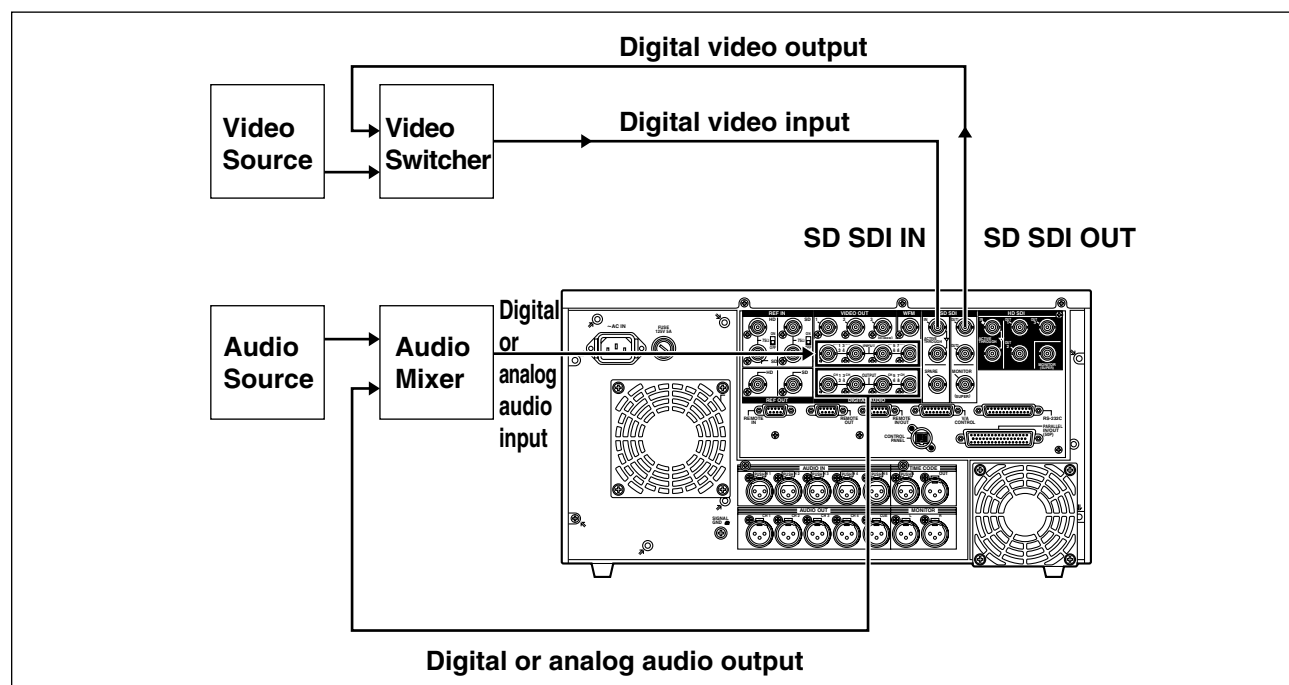
PREAD V
ON
PREAD A
ON

- (2) Perform the connections for pre-read editing as shown in the figure below.
- (3) Proceed with pre-read editing in the desired insert editing mode.
- (4) Restore the original connections upon completion of the editing.
- (5) Press the F11 or F12 key to set the pre-read function to OFF.
- (6) Check that there are no loop connections.

<Note>

During pre-read operations, the SD SDI MONITOR and AUDIO MONITOR connectors function as monitoring connectors, and the input signals are output from the IN point to the OUT point in their original state.

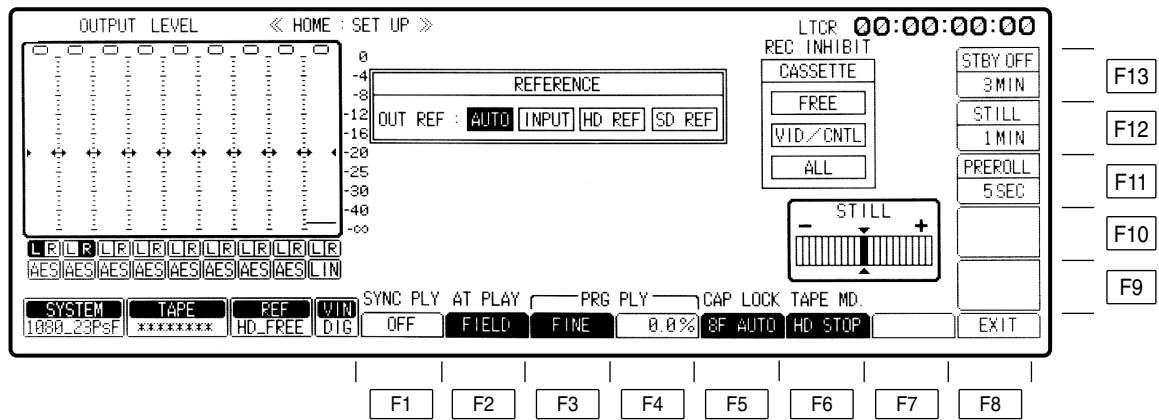
Further, the preread monitor function will not work when the monitor MIX function has been set to ON. To use the function, set MIX to OFF.



Connections for pre-read editing

HOME SET UP menu

This menu is displayed by pressing the following keys: **HOME** → **F8**
 OR
SET UP → **F1**



HOME SET UP menu

Key	Key designation	Description
F1	SYNC PLY Sync play.	Automatically compensates for the start initiated for the playback mode. For instance, when the VTR is set to the playback mode from the preroll point, it synchronizes its own phase to ensure that the tape arrives at the IN point after the preroll time has elapsed. (The function takes effect only when the front panel controls are used for operation.) ON: Sync play function operates. OFF: Normal playback is assumed.
F2	AT PLY For switching the playback picture in JOG/VAR.	FIELD: Plays the tape field by field. FRAME1*1/ FRAME2*2: Plays back on a frame by frame basis at the – 1a to + 1a speed and on a field by field basis at all other speeds. If the tape material image has a scene cutoff when moving from No. 2 field to No. 1 field, as when editing with the No. 1 field as cutoff, use FRAME 1. Use Frame 2 when the No. 2 field is the scene cutoff.
F3	PRG PLAY Program play.	Selects the variable step for program play. FINE: 0.1% step COARSE: 1.0% step
F4	PRG PLAY Program play.	Normal playback occurs at variable speed within the range of $\pm 5\%$ with the variable step of the F3 key. Refer to “Programmed play function”.
F5	CAP LOCK*3 For setting the capstan servo lock	Selects the capstan servo lock mode during playback. 4F AUTO (8F AUTO: 1080/23p, 1080/24p, 1080/50i): Assumes color frame auto lock mode. If there is any discontinuity in the color frame during playback, the unit locks again at a new color frame. 4F FORCE (8F FORCE: 1080/23p, 1080/24p, 1080/50i): Assumes color frame forced lock mode. If there is any discontinuity in the color frame during playback, the unit preserves the field sequence at initial lock. 2F: Assumes frame lock mode. ●The capstan servo lock mode can be set in AUTO (or MANUAL) EDIT SET UP menu. If the two settings differ, priority is given to the final mode setting.
F6	TAPE MD. Tape mode when the VTR is in standby OFF.	HD.STOP: Stops the drum when the tape is loose. HLF LOAD: Half-loads the tape.
F7	—	
F8	EXIT	Returns the VTR to the HOME menu screen.

*1 This item is not displayed when the 720/59p mode has been selected.

*2 This item does not function when the 720/59p, 1080/23Psf or 1080/24Psf mode has been selected.

*3 <Note>

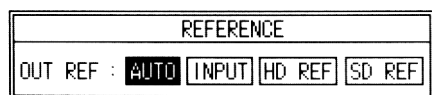
In the 1080/59i mode, the factory setting for this item is 2F. In the 1080/23p mode, it is 8F AUTO. The fact that the factory setting differs depending on the format should be borne in mind when one format is converted into another.

HOME SET UP menu

Key	Key designation	Description
F9–F10	—	
F11	PREROLL For selecting the preroll time.	After pressing the F11 key, turn the ADJUST control. Selection can be made between 0 and 30 seconds.
F12	STILL For setting the STOP/STILL (static frame) mode holding time.	Sets the stop/still (still picture) mode holding time. In order to protect the tape, the VTR is automatically transferred to the tape tension release mode (loosing) after a specific time has elapsed. This specific time can be set. After pressing the F12 key, turn the ADJUST control. 1 sec, 3 sec, 30 sec, 1 min, 3 min or 5 min can be set as the holding time.
F13	STBY OFF For setting the time for the transfer to standby OFF.	For setting the time for the transfer from tape loosing to standby OFF. After pressing the F13 key, turn the ADJUST control. 1 sec, 3 sec, 30 sec, 1 min, 3 min, 16 min and ∞ [Infinity: No transfer to standby OFF mode (drum stop/half loading)] can be set.

HOME SET UP menu

□ Reference



OUT REF: This sets the video output signal reference.

AUTO: When the REF VIDEO connector input signal is available, the output reference is locked to REF VIDEO; when it is not available, it is locked to the INPUT input signal. When neither the REF VIDEO nor INPUT input signal is available, the internal signal serves as the reference.

Depending on the format, the sequence of priority is as follows:

HD mode:

HD REF>SD REF>INPUT>FREE

SD mode:

SD REF>HD REF>INPUT>FREE

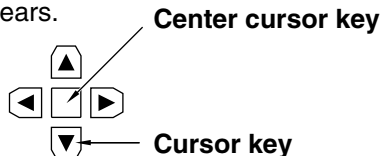
INPUT: When the INPUT input signal is available, the output reference is locked to the INPUT signal; when it is not available, the internal signal serves as the reference.

HD REF: When the HD REF input signal is available at the HD REF IN connector, the output reference is locked to the REF signal; when it is not available, the internal signal serves as the reference.

SD REF: When the SD REF input signal is available at the SD REF IN connector, the output reference is locked to the REF signal; when it is not available, the internal signal serves as the reference.

Operation

- (1) Press the center cursor key.
The cursor now appears.



- (2) Move the cursor to the item to be set using the cursor keys.
The selected item now blinks.

OUT REF: INPUT

- (3) Press the ENT key. The setting is now entered.

*In the 720/59p mode, use the SD REF for synchronization with an external component. (In this mode, SD REF or SF FREE is used.)

When AUTO has been set, the sequence of priority is as follows: SD REF>FREE.

HOME SET UP menu

☐ Programmed play function

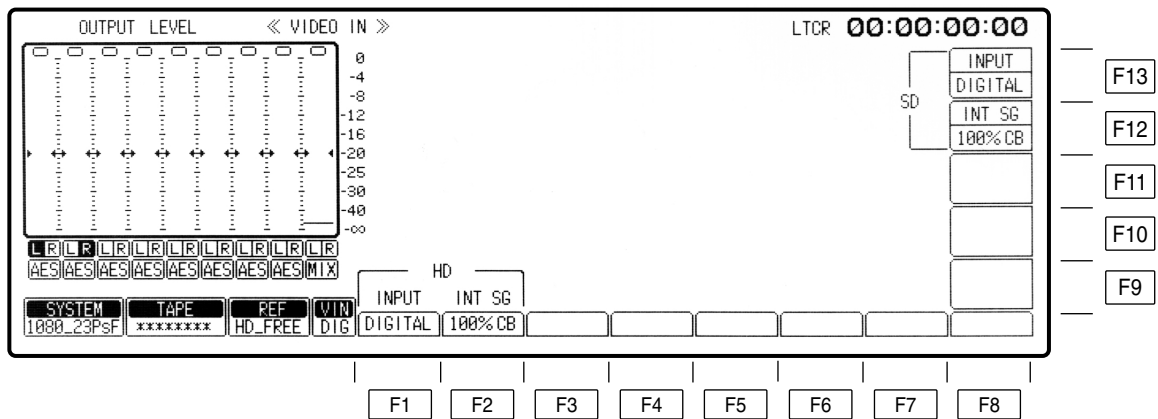
- (1) Press the F4 (PRG PLY) key.
- (2) Set the step to FINE or COARSE using the F3 (PRG PLY) key.
- (3) Set the programmed play speed using the ADJUST control.

PRG PLY
2.0%

- (4) Press the PLAY and VAR buttons together.
- (5) To change the playback speed, turn the ADJUST control while pressing the VAR button.
- (6) To stop programmed play, press the STOP button.

VIDEO IN menu

This menu is displayed by pressing the following key: VIDEO IN



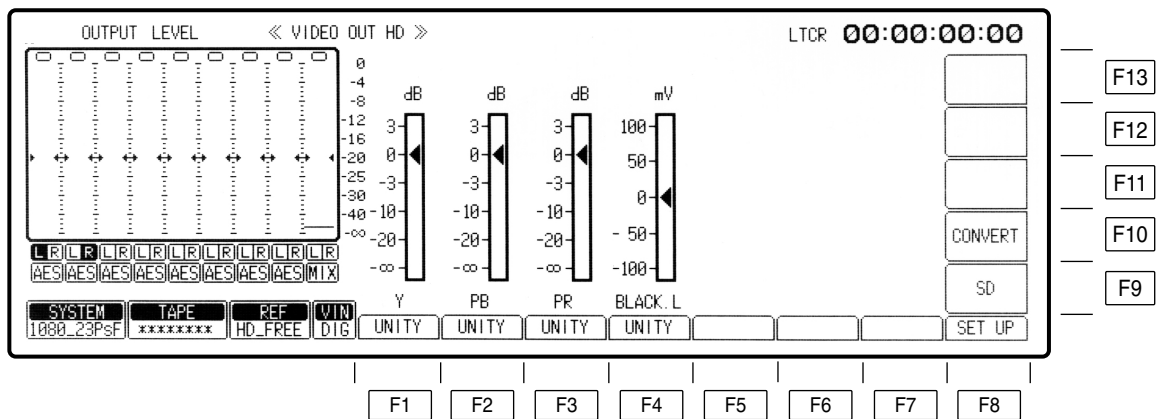
VIDEO IN menu

Key	Key designation	Description
F1	INPUT For selecting the HD video input signals.	DIGITAL: Selects the serial input signals. INT SG: Selects the internal signals.
F2	INT SG For selecting the type of HD internal signals.	75% CB: Selects the 75% color bar signal. 100% CB: Selects the 100% color bar signal. RAMP: Selects the RAMP signal. MULT-BST: Selects the multi-burst signal. BLACK: Selects the black-burst signal. SIF PLL: Selects the signals for checking the serial interface PLL. SIF EQ: Selects the signal for checking the serial interface equalizer. SMPTE CB*: Selects the SMPTE color bar signal.
F3–F11	—	
F12	INT SG For selecting the type of SD internal signals.	75% CB: Selects the 75% color bar signal. 100% CB: Selects the 100% color bar signal. RAMP: Selects the RAMP signal. MULT-BST: Selects the multi-burst signal. BLACK: Selects the black-burst signal. SIF PLL: Selects the signals for checking the serial interface PLL. SIF EQ: Selects the signal for checking the serial interface equalizer. SMPTE CB*: Selects the SMPTE color bar signal.
F13	INPUT For selecting the SD video input signals.	DIGITAL: Selects the serial input signals. INT SG: Selects the internal signals.

*When the 720/59p format has been selected, the SMPTE CB function does not function

VIDEO OUT HD menu

This menu is displayed by pressing the following key: VIDEO OUT

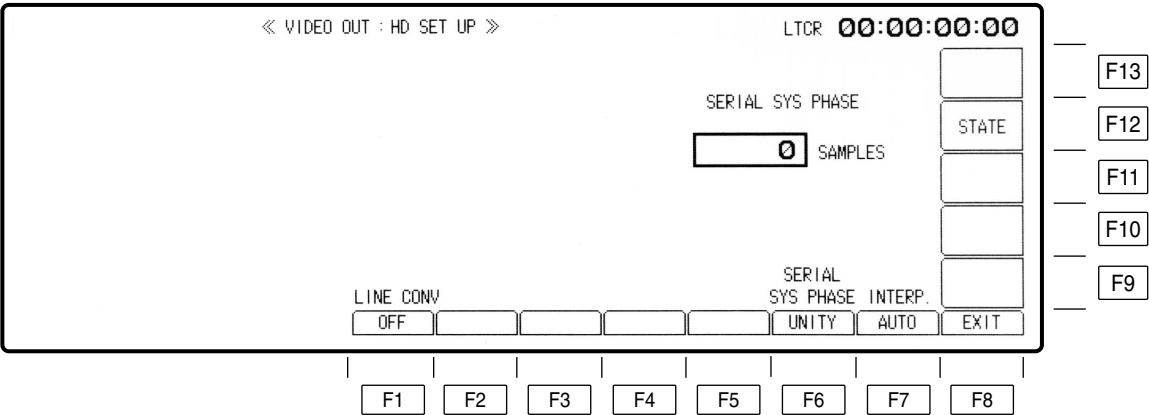


VIDEO OUT HD menu

Key	Key designation	Description
F1	For adjusting the Y level.	$-\infty$ to +3 dB (−3 dB to +3 dB in fine adjustment mode) ● Establishes the fine adjustment mode if the key is pressed together with the F key.
F2	PB For adjusting the P _B level.	$-\infty$ to +3 dB (−3 dB to +3 dB in fine adjustment mode) ● Establishes the fine adjustment mode if the key is pressed together with the F key.
F3	PR For adjusting the P _R level.	$-\infty$ to +3 dB (−3 dB to +3 dB in fine adjustment mode) ● Establishes the fine adjustment mode if the key is pressed together with the F key.
F4	BLACK.L For adjusting the black level.	± 100 mV
F5–F7	—	
F8	SET UP	Transfers the VTR to the VIDEO OUT HD SET UP menu screen.
F9	SD	Transfers the VTR to the VIDEO OUT SD menu screen.
F10	CONVERT	Transfers the VTR to the VIDEO OUT CONVERT menu screen.
F11–F13	—	

VIDEO OUT HD SET UP menu

This menu is displayed by pressing the following keys: VIDEO OUT → F8



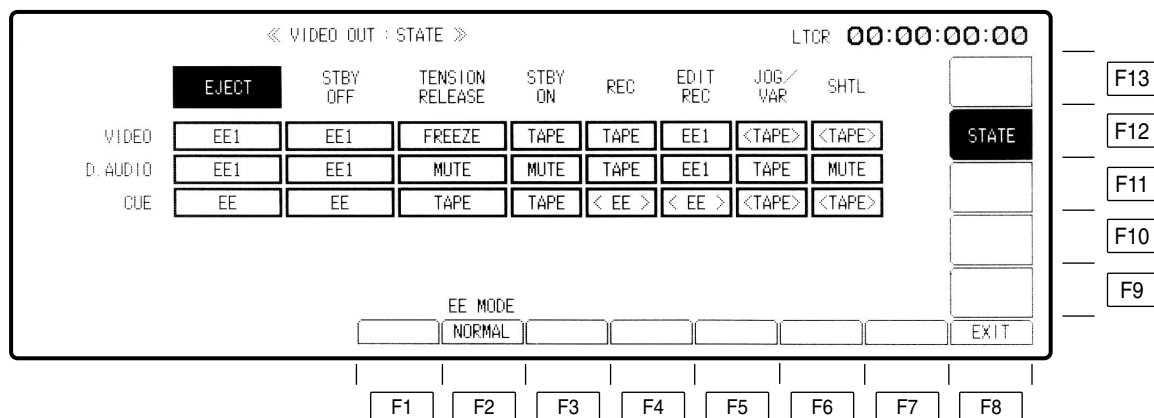
VIDEO OUT HD SET UP menu

Key	Key designation	Description
F1	LINE CONV*	Line conversion function OFF: No line conversion; when a 1035 tape is played back, 1080 signals with black bands added at the top and bottom of the picture are output. ON: Conversion from 1035 to 1080 lines.
F2-5	—	
F6	SERIAL SYS PHASE	Assumes white-on-black display (VAR mode) when the F key and F6 key are pressed simultaneously, and can be adjusted with the ADJUST control. Adjustment is possible up to a maximum of ± 0.5 H (depending on the mode). ± 1375 SAMPLE: 1080/23p and 1080/24p formats ± 1320 SAMPLE: 1080/50i and 1080/25p formats ± 1100 SAMPLE: 1080/59i format ± 825 SAMPLE: 720/59p format (1_SAMPLE=13.5 nSEC) Adjustment is by sample increments.
F7	INTERP. Interpolation	Initiates vertical interpolation during AT playback to reduce the vertical movement of the playback images. AUTO: Automatically initiates interpolation in the JOG or VAR mode. OFF: No interpolation.
F8	EXIT	Returns the VTR to the VIDEO OUT HD menu screen.
F9-F11	—	
F12	STATE	Transfers the VTR to the VIDEO OUT HD SET UP STATE menu screen.
F13	—	

*This item only functions when the 1080/59i format has been selected.

VIDEO OUT HD SET UP STATE menu

This menu is displayed by pressing the following keys: VIDEO OUT (or AUDIO OUT) → F8 → F12
OR
VIDEO OUT → F9 → F11 (or F12) → F12



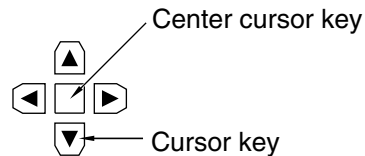
Key	Key designation	Description
F1	—	
F2	EE_MODE	NORMAL: The standard mode is established (E-E through mode is turned OFF). THROUGH: When the EE/EE1 is selected, the E-E through mode (AV minimum delay mode) is established. *A discrepancy occurs between the video (audio) output and time code output in the E-E through mode.
F3–F7	—	
F8	EXIT	Transfers the VTR to the VIDEO OUT HD SET UP menu screen.
F9–F11	—	
F12	STATE	Transfers the VTR to the VIDEO OUT HD SET UP menu screen.
F13	—	

VIDEO OUT SET UP STATE menu

□ Selecting the TAPE/EE output signals

The video, audio and cue signals which are output during the VTR's operation are switched on this menu to TAPE or EE signals.

- (1) Press the center cursor key to display the cursor.



- (2) Move the cursor to the desired position using the cursor keys.

*The cursor will not move to places which cannot be set.

	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	EE1	EE1	FREEZE	TAPE	TAPE	EE1	<TAPE>	<TAPE>
D.AUDIO	EE1	EE1	MUTE	MUTE	TAPE	EE1	TAPE	MUTE
CUE	EE	EE	TAPE	TAPE	<EE>	<EE>	<TAPE>	<TAPE>

- (3) Press the center cursor key to select TAPE or EE.
Refer to the following table for the types of setting options.

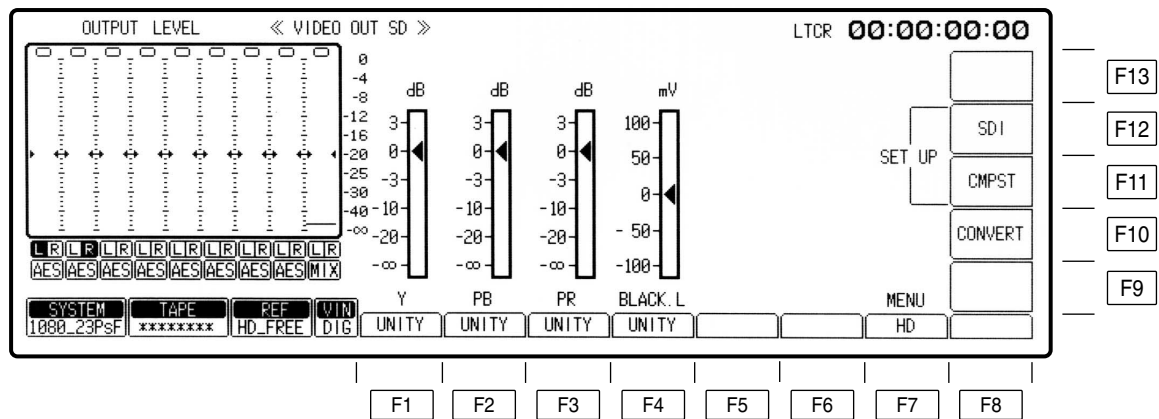
CH \ Mode	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	FREEZE BLACK GRAY FREE NOISE EE1 EE2	<u>TAPE</u> EE1 EE2	<u>TAPE</u> EE1 EE2	TAPE <u>EE1</u>	TAPE	TAPE
D.AUDIO	MUTE <u>EE1</u> EE2	MUTE <u>EE1</u> EE2	<u>MUTE</u> EE1 EE2	<u>MUTE</u> EE1 EE2	<u>TAPE</u> EE1 EE2	TAPE <u>EE1</u>	<u>TAPE</u> MUTE	TAPE <u>MUTE</u>
CUE	TAPE <u>EE</u>	TAPE <u>EE</u>	<u>TAPE</u> EE	<u>TAPE</u> EE	EE	EE	TAPE	TAPE

(Underline denotes the factory setting mode.)

- When a setting is to be established during head selection using the TEST menu or during editing, the setting applying to the operation concerned takes precedence over the setting selected using the VIDEO OUT SET UP STATE menu.
- When TAPE/EE has been set by F1 (OUTPUT) on the HOME menu, the HOME menu setting takes precedence.

VIDEO OUT SD menu

This menu is displayed by pressing the following keys: VIDEO OUT → F9



VIDEO OUT SD menu

Key	Key designation	Description
F1	Y For adjusting the Y level.	$-\infty$ to +3 dB (−3 dB to +3 dB in fine adjustment mode) ● Establishes the fine adjustment mode if the key is pressed together with the F key.
F2	PB For adjusting the P _B level.	$-\infty$ to +3 dB (−3 dB to +3 dB in fine adjustment mode) ● Establishes the fine adjustment mode if the key is pressed together with the F key.
F3	PR For adjusting the P _R level.	$-\infty$ to +3 dB (−3 dB to +3 dB in fine adjustment mode) ● Establishes the fine adjustment mode if the key is pressed together with the F key.
F4	BLACK.L For adjusting the black level.	± 100 mV
F5–F6	—	
F7	HD	Transfers the VTR to the VIDEO OUT HD menu screen.
F8–F9	—	
F10	CONVERT	Transfers the VTR to the VIDEO OUT CONVERT menu screen.
F11	CMPST	Transfers the VTR to the VIDEO OUT SD SET UP COMPOSITE menu screen.
F12	SDI	Transfers the VTR to the VIDEO OUT SD SET UP SDI menu screen.
F13	—	

VIDEO OUT SD SET UP COMPOSITE menu

This menu is displayed by pressing the following keys: VIDEO OUT → F9 → F11

« VIDEO OUT : SD SET UP : CMPST »

LTCR 00:00:00:00

SYS SC : 0 DEGREE

SYS H : 0 SAMPLES

COMB FIL ON

SYS SC UNITY

SYS H UNITY

INTERP. AUTO

EXIT

STATE

LINE BLK

7.5%STUP

OFF

F1

F2

F3

F4

F5

F6

F7

F8

F13

F12

F11

F10

F9

VIDEO OUT SD SET UP COMPOSITE menu

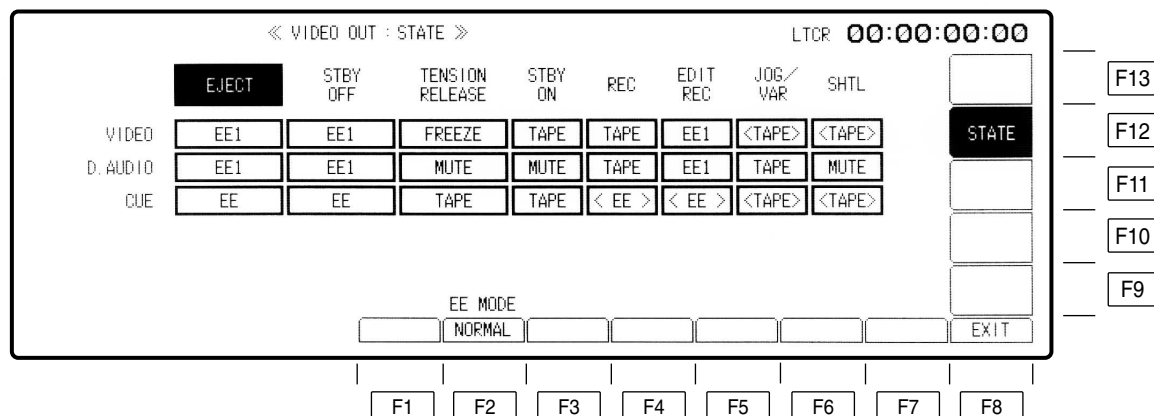
Key	Key designation	Description
F1	COMB FIL* ¹ For controlling the comb filter.	Selects whether the analog composite output signals are to be passed through the comb filter. ON: The signals are passed through the filter and output. OFF: The signals are not passed through the filter.
F2–F4	—	
F5	SYS SC For adjusting the system subcarrier.	Adjusts the system subcarrier of the composite output. When this key is pressed together with the F key, the white-on-black display (VAR MODE) is established, and the system subcarrier can be adjusted using the ADJUST control.
F6	SYS H For adjusting the system H phase.	Adjusts the system H phase of the composite output. Adjusts the system H phase of the composite output. When this key is pressed together with the F key, the white-on-black display (VAR MODE) is established, and the system H phase can be adjusted using the ADJUST control. The system H phase is adjusted in sample increments. $\pm 0.5H$ –858 to +858 (with 480/59.94i format) –864 to +864 (with 576/50i format)
F7	INTERP. Interpolation	Initiates vertical interpolation during AT playback to reduce the vertical movement of the playback images. AUTO: Automatically initiates interpolation in the JOG or VAR mode. OFF: No interpolation.
F8	EXIT	Returns the VTR to the VIDEO OUT SD menu screen.
F9	—	
F10	7.5%STUP For adding 7.5% setup to the composite output.	Selects whether to add 7.5% setup to the composite output. (This setting takes effect with NTSC output signals only; This setting is not displayed with PAL output signals.) ON: 7.5% setup is added. OFF: 7.5% setup is not added.
F11	LINE BLK* ²	For transferring to the video output line blanking menu. NTSC: Lines 10 to 21. PAL: Lines 8 to 22.
F12	STATE	Transfers the VTR to the VIDEO OUT SD SET UP CMPST STATE menu screen.
F13	—	

*¹This item does not function in the 1080/50i mode.

*²In a mode other than the 525i (480/59i) mode, this adjustment is possible only when the AJ-UDC3700P HD-SD format converter board (optional accessory) has been installed.

VIDEO OUT SD SET UP CMPST STATE menu

This menu is displayed by pressing the following keys: VIDEO OUT (or [AUDIO OUT])→F8→F12
OR
VIDEO OUT→F9→F11 (or F12)→F12



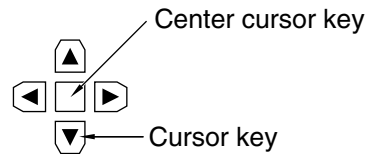
Key	Key designation	Description
F1	—	
F2	EE_MODE	NORMAL: The standard mode is established (E-E through mode is turned OFF). THROUGH: The E-E through mode (AV minimum delay mode) is established. *A discrepancy occurs between the video (audio) output and time code output in the E-E through mode.
F3–F7	—	
F8	EXIT	Transfers the VTR to the VIDEO OUT SD SET UP CMPST menu screen.
F9–F13	—	

VIDEO OUT SD SET UP CMPST STATE menu

□ Selecting the TAPE/EE output signals

The video, audio and cue signals which are output during the VTR's operation are switched on this menu to TAPE or EE signals.

- (1) Press the center cursor key to display the cursor.



- (2) Move the cursor to the desired position using the cursor keys.

*The cursor will not move to places which cannot be set.

	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	EE1	EE1	FREEZE	TAPE	TAPE	EE1	<TAPE>	<TAPE>
D. AUDIO	EE1	EE1	MUTE	MUTE	TAPE	EE1	TAPE	MUTE
CUE	EE	EE	TAPE	TAPE	< EE >	< EE >	<TAPE>	<TAPE>

- (3) Press the center cursor key to select TAPE or EE.

Refer to the following table for the types of setting options.

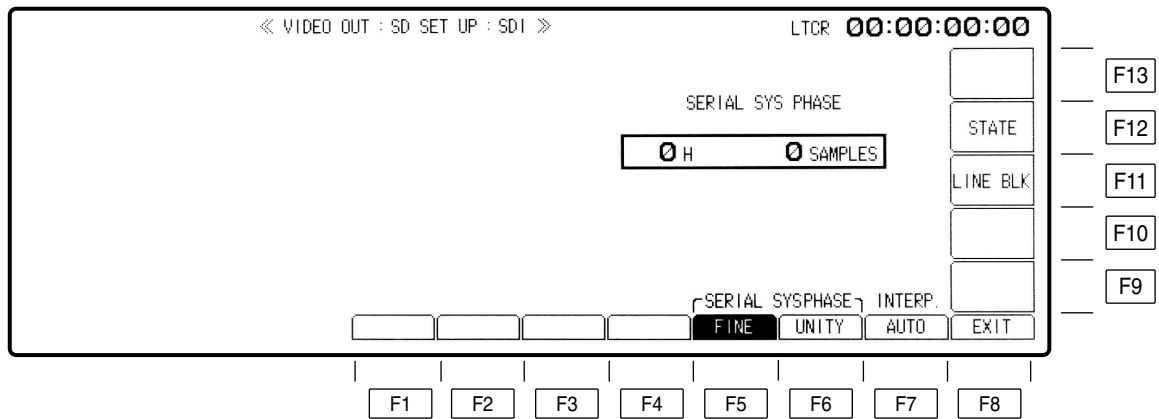
Mode CH	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	<u>FREEZE</u> BLACK GRAY FREE NOISE EE1 EE2	<u>TAPE</u> EE1 EE2	<u>TAPE</u> EE1 EE2	TAPE <u>EE1</u>	TAPE	TAPE
D.AUDIO	MUTE <u>EE1</u> EE2	MUTE <u>EE1</u> EE2	<u>MUTE</u> EE1 EE2	<u>MUTE</u> EE1 EE2	<u>TAPE</u> EE1 EE2	TAPE <u>EE1</u>	TAPE MUTE	TAPE <u>MUTE</u>
CUE	TAPE <u>EE</u>	TAPE <u>EE</u>	<u>TAPE</u> EE	<u>TAPE</u> EE	EE	EE	TAPE	TAPE

(Underline denotes the factory setting mode.)

- When a setting is to be established during head selection using the TEST menu or during editing, the setting applying to the operation concerned takes precedence over the setting selected using the VIDEO OUT SET UP STATE menu.
- When TAPE/EE has been set by F1 (OUTPUT) on the HOME menu, the HOME menu setting takes precedence.

VIDEO OUT SD SET UP SDI menu

This menu is displayed by pressing the following keys: VIDEO OUT → F9 → F12



VIDEO OUT SD SET UP SDI menu

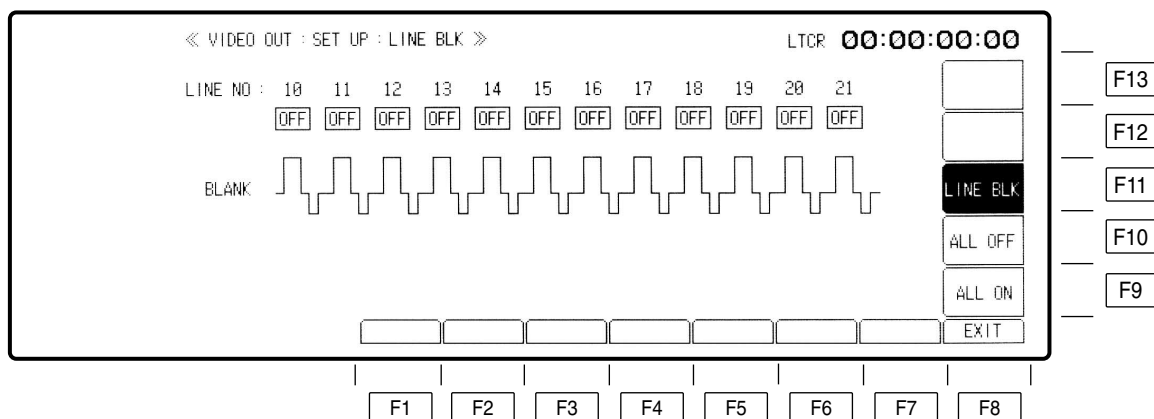
Key	Key designation	Description
F1–F4	—	
F5 F6	SERIAL SYS PHASE	<p>Adjusts the sync phase of SD_SDI output in relation to the reference signal.</p> <p>FINE/COARSE</p> <ul style="list-style-type: none"> • This can be selected when the function key is pressed together with the F key. <p>With the 480/59.94i format: Adjustment can be made from –2H-858 to +1H+858.</p> <p>With the 480/59.94p format*1: Adjustment can be made from –857 to +858.</p> <p>With the 576/50i format*1: Adjustment can be made from –2H-864 to +1H+864.</p> <p>For FINE, adjustments are made in sample increments; for COARSE, they are made in H increments.</p>
F7	INTERP. Interpolation	<p>Initiates vertical interpolation during AT playback to reduce the vertical movement of the playback images.</p> <p>AUTO: Automatically initiates interpolation in the JOG or VAR mode.</p> <p>OFF: No interpolation.</p>
F8	EXIT	Returns the VTR to the VIDEO OUT SD menu screen.
F9–F10	—	
F11	LINE BLK*2	<p>For transferring to the video output line blanking menu.</p> <p>NTSC: Lines 10 to 21.</p> <p>PAL: Lines 8 to 22.</p>
F12	STATE	Transfers the VTR to the VIDEO OUT SD SET UP SDI STATE menu screen.
F13	—	

*1This adjustment is possible only when the AJ-UDC3700P HD-SD format converter board (optional accessory) has been installed.

*2In a mode other than the 525i (480/59i) mode, this adjustment is possible only when the AJ-UDC3700P HD-SD format converter board (optional accessory) has been installed.

VIDEO OUT SET UP LINE BLK (video output line blanking) menu

This menu is displayed by pressing the following keys: VIDEO OUT → F9 → F11 (or F12) → F11.



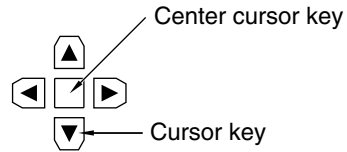
Key	Key designation	Description
F1–F7	—	
F8	EXIT	Returns the VTR to the VIDEO OUT SD SET UP menu screen.
F9	ALL ON	When this key is pressed together with the F key, all the lines are blanked.
F10	ALL OFF	When this key is pressed together with the F key, all the lines are non-blanked.
F11	LINE BLK	Refer to the “Setting the line blanking” (on the next page).
F12–F13	—	

VIDEO OUT SET UP LINE BLK (video output line blanking) menu

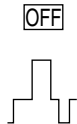
□ Setting the line blanking

The blanking lines in the vertical blanking period can be set in 1-line increments.

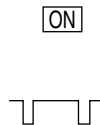
- (1) Press the center cursor key.
The cursor now appears.



- (2) Move the cursor and select the lines to be blanked.



- (3) Press the center cursor key to select ON or OFF for the display.



ON: The lines are blanked.

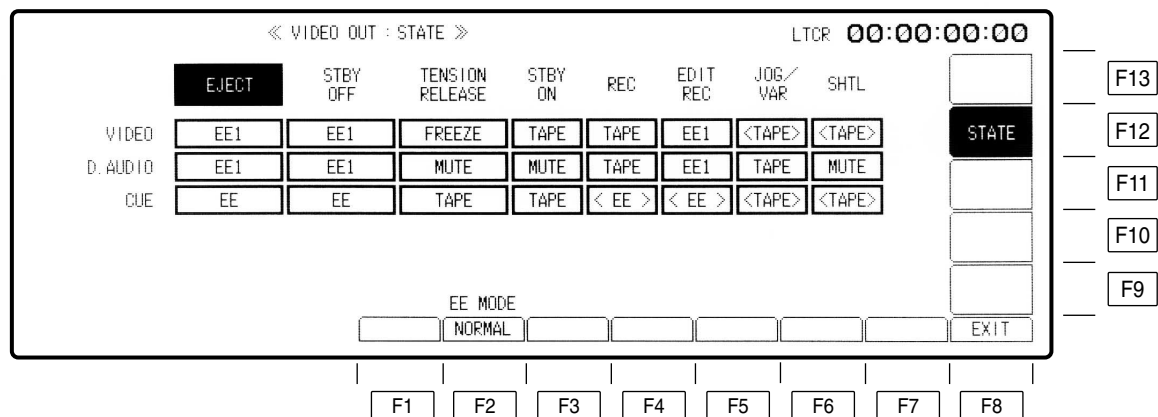
OFF: The non-blanking status is established, and no lines are selected.

- (4) Press the ENT key.
The blanking is now entered.

- (5) To return to the previous screen, press the F8 (EXIT) key.

VIDEO OUT SD SET UP SDI STATE menu

This menu is displayed by pressing the following keys: VIDEO OUT (or AUDIO OUT) → F8 → F12
OR
VIDEO OUT → F9 → F11 (or F12) → F12.



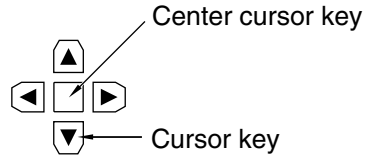
Key	Key designation	Description
F1	—	
F2	EE_MODE	NORMAL: The standard mode is established (E-E through mode is turned OFF). THROUGH: The E-E through mode (AV minimum delay mode) is established. *A discrepancy occurs between the video (audio) output and time code output in the E-E through mode.
F3-F7	—	
F8	EXIT	Transfers the VTR to the VIDEO OUT SD SET UP SDI menu screen.
F9-F13	—	

VIDEO OUT SET UP STATE menu

□ Selecting the TAPE/EE output signals

The video, audio and cue signals which are output during the VTR's operation are switched on this menu to TAPE or EE signals.

- (1) Press the center cursor key to display the cursor.



- (2) Move the cursor to the desired position using the cursor keys.

*The cursor will not move to places which cannot be set.

	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	EE1	EE1	FREEZE	TAPE	TAPE	EE1	<TAPE>	<TAPE>
D.AUDIO	EE1	EE1	MUTE	MUTE	TAPE	EE1	TAPE	MUTE
CUE	EE	EE	TAPE	TAPE	< EE >	< EE >	<TAPE>	<TAPE>

- (3) Press the center cursor key to select TAPE or EE.
Refer to the following table for the types of setting options.

CH \ Mode	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	FREEZE BLACK GRAY FREE NOISE EE1 EE2	<u>TAPE</u> EE1 EE2	<u>TAPE</u> EE1 EE2	TAPE <u>EE1</u>	TAPE	TAPE
D.AUDIO	MUTE <u>EE1</u> EE2	MUTE <u>EE1</u> EE2	MUTE EE1 EE2	<u>MUTE</u> EE1 EE2	<u>TAPE</u> EE1 EE2	TAPE <u>EE1</u>	<u>TAPE</u> MUTE	TAPE <u>MUTE</u>
CUE	TAPE <u>EE</u>	TAPE <u>EE</u>	<u>TAPE</u> EE	<u>TAPE</u> EE	EE	EE	TAPE	TAPE

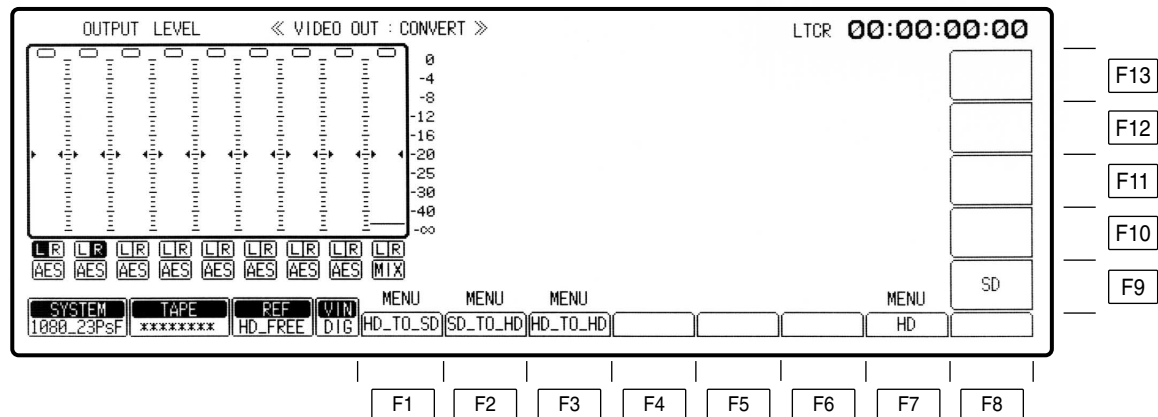
(Underline denotes the factory setting mode.)

- When a setting is to be established during head selection using the TEST menu or during editing, the setting applying to the operation concerned takes precedence over the setting selected using the VIDEO OUT SET UP STATE menu.
- When TAPE/EE has been set by F1 (OUTPUT) on the HOME menu, the HOME menu setting takes precedence.

VIDEO OUT CONVERT menu

(This menu appears when the AJ-UDC3700P HD-SD format converter board, an optional accessory, has been installed.)

This menu is displayed by pressing the following keys: VIDEO OUT → F10

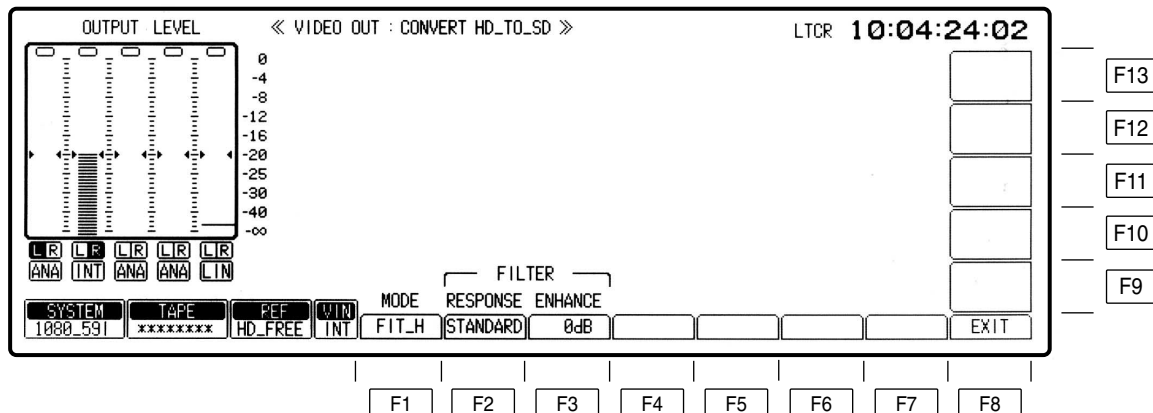


Key	Key designation	Description
F1	HD_TO_SD	Transfers the VTR to the VIDEO OUT CONVERT HD TO SD menu screen.
F2	SD_TO_HD	Transfers the VTR to the VIDEO OUT CONVERT SD TO HD menu screen.
F3	HD_TO_HD	Transfers the VTR to the VIDEO OUT CONVERT HD TO HD menu screen.
F4–F6	—	
F7	HD	Returns the VTR to the VIDEO OUT HD menu screen.
F8	—	
F9	SD	Returns the VTR to the VIDEO OUT SD menu screen.
F10–F13	—	

VIDEO OUT CONVERT HD_TO_SD menu

(This menu appears when the AJ-UDC3700P HD-SD format converter board, an optional accessory, has been installed.)

This menu is displayed by pressing the following keys: VIDEO OUT → F10 → F1

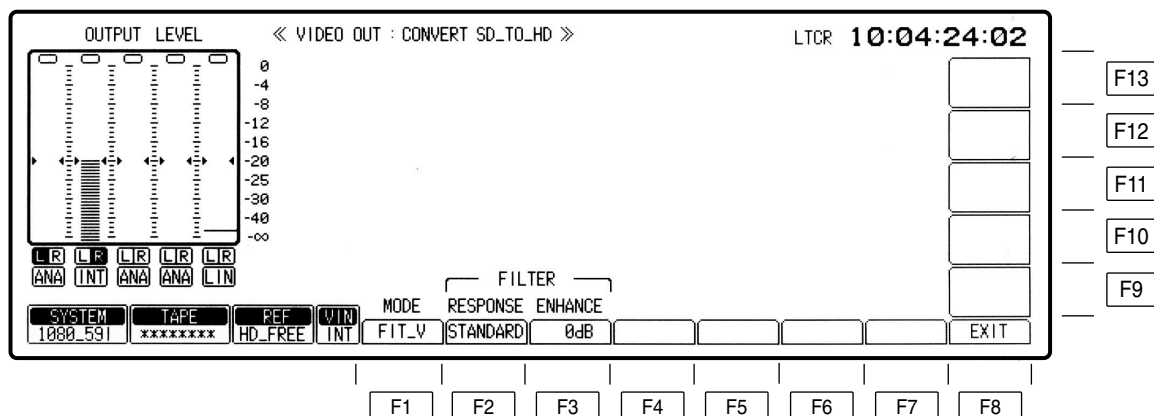


Key	Key designation	Description
F1	MODE	<p>Selects the aspect ratio at which signals are output from the down-converter.</p> <p>FIT_V: Changes the magnification by matching the input size to the output size along the perpendicular axis. (The aspect ratio remains the same.)</p> <p>FIT_H: Changes the magnification by matching the input size to the output size along the horizontal axis. (The aspect ratio remains the same.)</p> <p>FIT_HV: Changes the magnification by matching the input size to the output size along the horizontal and perpendicular axes. (The aspect ratio may be distorted.)</p> <p>14:9: Sets the aspect ratio to 14×9.</p> <p>13:9: Sets the aspect ratio to 13×9.</p> <p>*When the 525p (480/59.94p) has been selected for the SD SDI MAIN output, the aspect ratio remains fixed at 16:9.</p>
F2	RESPONSE	<p>Selects the frequency bandwidth of the down-converter output signals.</p> <p>STANDARD:</p> <p>WIDE:</p> <p>NARROW:</p>
F3	ENHANCE	<p>Controls the enhancement adjustment of the down-converter output signals.</p> <p>6dB:</p> <p>3dB:</p> <p>1.5dB:</p> <p>0dB:</p>
F4–F7	—	
F8	EXIT	Returns the VTR to the VIDEO OUT CONVERT menu screen.
F9–F13	—	

VIDEO OUT CONVERT SD_TO_HD menu

(This menu appears when the AJ-UDC3700P HD-SD format converter board, an optional accessory, has been installed.)

This menu is displayed by pressing the following keys: VIDEO OUT → F10 → F2



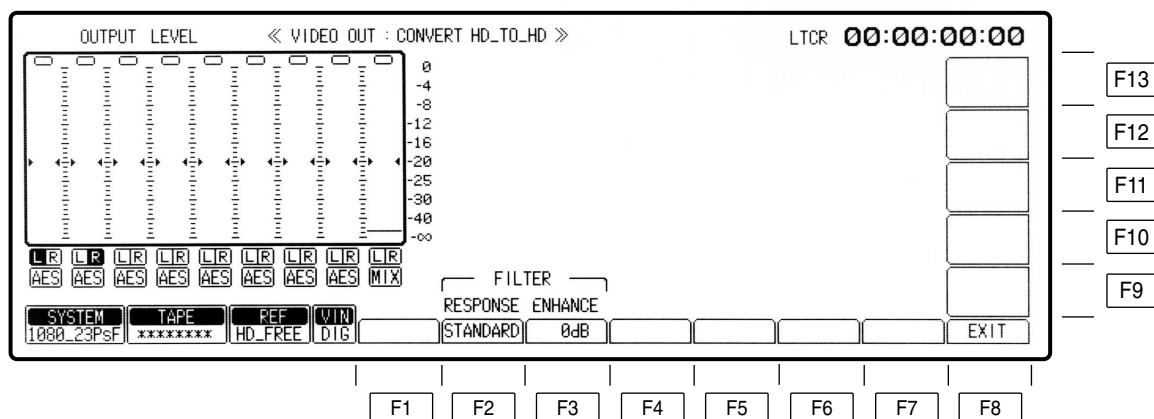
Key	Key designation	Description
F1	MODE	<p>Selects the aspect ratio at which signals are output from the up-converter.</p> <p>FIT_V: Changes the magnification by matching the input size to the output size along the perpendicular axis. (The aspect ratio remains the same.)</p> <p>FIT_H: Changes the magnification by matching the input size to the output size along the horizontal axis. (The aspect ratio remains the same.)</p> <p>FIT_HV: Changes the magnification by matching the input size to the output size along the horizontal and perpendicular axes. (The aspect ratio may be distorted.)</p>
F2	RESPONSE	<p>Selects the frequency bandwidth of the up-converter output signals.</p> <p>STANDARD:</p> <p>WIDE:</p> <p>NARROW:</p>
F3	ENHANCE	<p>Controls the enhancement adjustment of the up-converter output signals.</p> <p>6dB:</p> <p>3dB:</p> <p>1.5dB:</p> <p>0dB:</p>
F4–F7	—	
F8	EXIT	Returns the VTR to the VIDEO OUT CONVERT menu screen.
F9–F13	—	

VIDEO OUT CONVERT HD_TO_HD menu

(This menu appears when the AJ-UDC3700P HD-SD format converter board, an optional accessory, has been installed.)

This menu is displayed by pressing the following keys: VIDEO OUT → F10 → F3

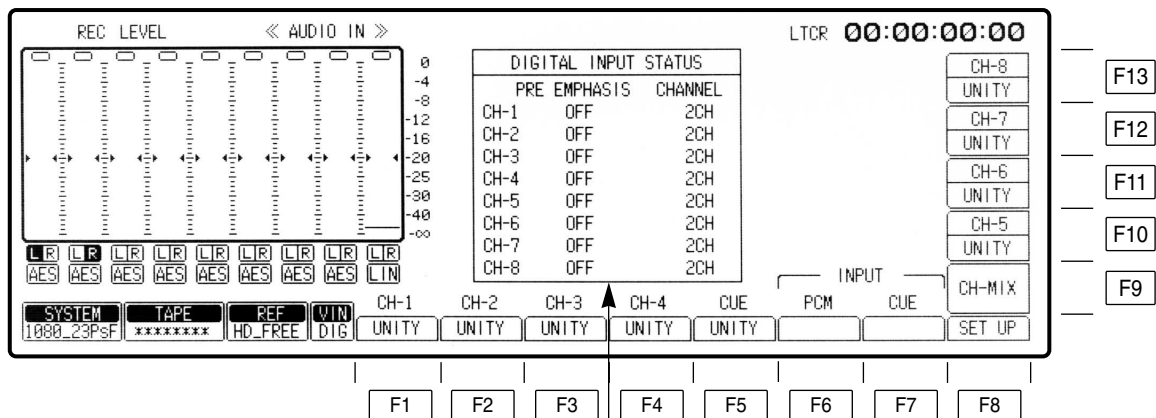
*This menu is operational when 1080/23.98p or 1080/24p has been set as the system format.



Key	Key designation	Description
F1	—	—
F2	RESPONSE	Selects the frequency bandwidth of the converter output signals. STANDARD: WIDE: NARROW:
F3	ENHANCE	Controls the enhancement adjustment of the converter output signals. 6dB: 3dB: 1.5dB: 0dB:
F4–F7	—	—
F8	EXIT	Returns the VTR to the VIDEO OUT CONVERT menu screen.
F9–F13	—	—

AUDIO IN menu

This menu is displayed by pressing the following key: **AUDIO IN**



The digital audio input statuses are displayed here.

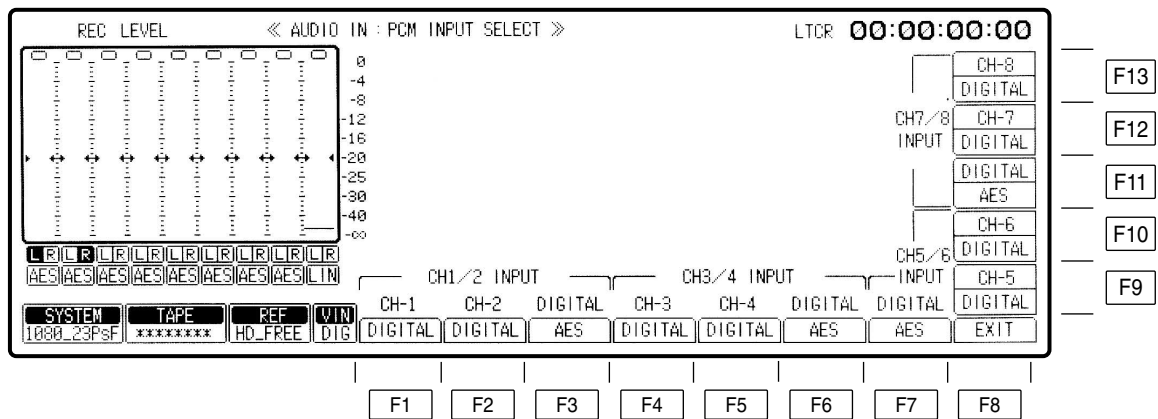
PRE EMPHASIS ON: Pre-emphasis is applied to the input signals.
OFF: Regular signals with no pre-emphasis are supplied.

AUDIO IN menu

Key	Key designation	Description
F1	CH-1 For adjusting the audio CH1 input level.	UNITY: Input level is fixed at UNITY value. VAR: Input level can be varied with ADJUST control. ●For switchover, press the UNITY/VAR button.
F2	CH-2 For adjusting the audio CH2 input level.	
F3	CH-3 For adjusting the audio CH3 input level.	
F4	CH-4 For adjusting the audio CH4 input level.	
F5	CUE For adjusting the cue audio input level.	
F6	PCM	Transfers the VTR to AUDIO IN PCM INPUT SELECT menu screen.
F7	CUE	Transfers the VTR to the AUDIO IN CUE INPUT menu screen.
F8	SET UP	Transfers the VTR to the AUDIO IN SET UP menu screen.
F9	CH-MIX	Transfers the VTR to the AUDIO IN CH-MIX menu screen.
F10	CH-5 For adjusting the audio CH5 input level.	UNITY: Input level is fixed at UNITY value. VAR: Input level can be varied with ADJUST control. ●For switchover, press the UNITY/VAR button.
F11	CH-6 For adjusting the audio CH6 input level.	
F12	CH-7 For adjusting the audio CH7 input level.	
F13	CH-8 For adjusting the audio CH8 input level.	

AUDIO IN PCM INPUT SELECT menu

This menu is displayed by pressing the following keys: **AUDIO IN** → **F6**



AUDIO IN PCM INPUT SELECT menu

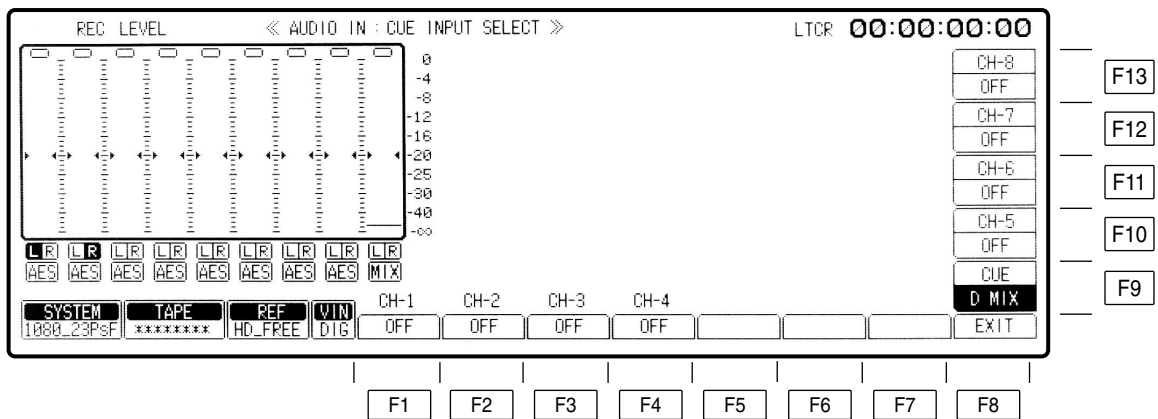
Key	Key designation	Description
F1	CH-1 For selecting the recording signals of digital audio CH1.	ANALOG: Selects the signals of the analog CH1 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH2 setting using F3). INT SG: Selects the internal generator signals.
F2	CH-2 For selecting the recording signals of digital audio CH2.	For selecting the recording signals of digital audio channel 2. ANALOG: Selects the signals of the analog CH2 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH1 setting using F3). INT SG: Selects the internal generator signals.
F3	DIGITAL For selecting the CH1 and CH2 digital input signals.	AES: Selects the AES digital audio input signals. SERIAL: Selects the serial input signals.
F4	CH-3 For selecting the recording signals of digital audio CH3.	ANALOG: Selects the signals of the analog CH3 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH4 setting using F6). INT SG: Selects the internal generator signals.
F5	CH-4 For selecting the recording signals of digital audio CH4.	ANALOG: Selects the signals of the analog CH4 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH3 setting using F6). INT SG: Selects the internal generator signals.
F6	DIGITAL For selecting the CH3 and CH4 digital input signals.	AES: Selects the AES digital audio input signals. SERIAL: Selects the serial input signals.
F7	DIGITAL For selecting the CH5 and CH6 digital input signals.	AES: Selects the AES digital audio input signals. SERIAL: Selects the serial input signals.
F8	EXIT	Returns the VTR to the AUDIO IN menu screen.
F9	CH-5 For selecting the recording signals of digital audio CH5.	ANA CH1: Selects the signals of the analog CH1 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH6 setting using F7). INT SG: Selects the internal generator signals.

AUDIO IN PCM INPUT SELECT menu

Key	Key designation	Description
F10	CH-6 For selecting the recording signals of digital audio CH6.	ANA CH2: Selects the signals of the analog CH2 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH5 setting using F7). INT SG: Selects the internal generator signals.
F11	DIGITAL For selecting the CH7 and CH8 digital input signals.	AES: Selects the AES digital audio input signals. SERIAL: Selects the serial input signals.
F12	CH-7 For selecting the recording signals of digital audio CH7.	ANA CH3: Selects the signals of the analog CH3 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH8 setting using F11). INT SG: Selects the internal generator signals.
F13	CH-8 For selecting the recording signals of digital audio CH8.	ANA CH4: Selects the signals of the analog CH4 input connector. DIGITAL: Selects the digital audio input signals (AES/SDI selection is made in line with the CH7 setting using F11). INT SG: Selects the internal generator signals.

AUDIO IN CUE INPUT SELECT menu

This menu is displayed by pressing the following keys: **AUDIO IN** → **F7**

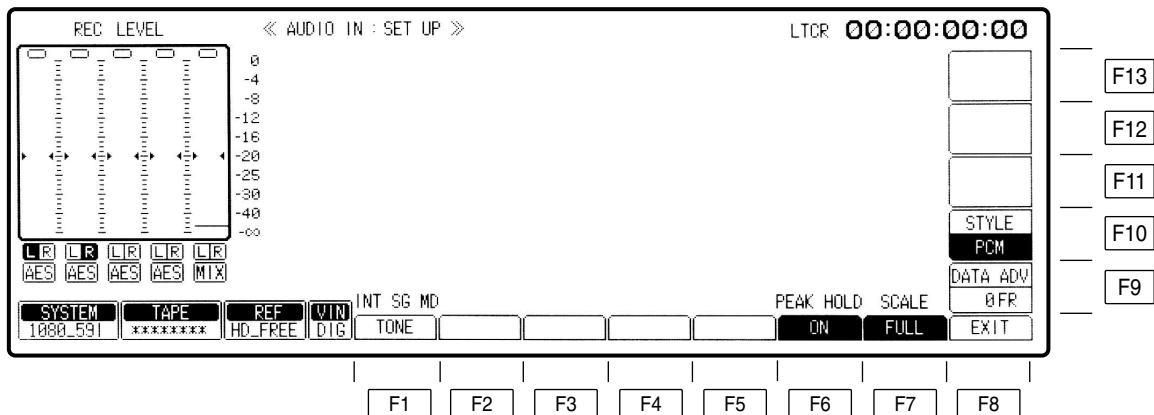


AUDIO IN CUE INPUT SELECT menu

Key	Key designation	Description
F1	CH-1 For setting cue mixing for CH1.	
F2	CH-2 For setting cue mixing for CH2.	(displayed only when D-MIX is set using F9) SOURCE: Mixes the input signals.
F3	CH-3 For setting cue mixing for CH3.	TAPE: Mixes the playback signals. OFF: No mixing.
F4	CH-4 For setting cue mixing for CH4.	
F5–F7	—	
F8	EXIT	Returns the VTR to the AUDIO IN menu screen.
F9	CUE For selecting the cue audio recording signals.	For selecting the signals to be recorded on the cue track. D-MIX: Mixes and records the digital channel signals selected by D-MIX. LINE: Selects the analog cue input signals. AUTO: In the normal recording mode, mixes and records all the (CH1 to CH4)* signals; during editing, automatically selects SOURCE for selected channels and TAPE for non-selected channels. *This differs, depending on the format.
F10	CH-5 For setting cue mixing for CH5.	
F11	CH-6 For setting cue mixing for CH6.	(displayed only when D-MIX is set using F9) SOURCE: Mixes the input signals.
F12	CH-7 For setting cue mixing for CH7.	TAPE: Mixes the playback signals. OFF: No mixing.
F13	CH-8 For setting cue mixing for CH8.	

AUDIO IN SET UP menu

This menu is displayed by pressing the following keys: **AUDIO IN** → **F8**
 OR
SET UP → **F6**



AUDIO IN SET UP menu

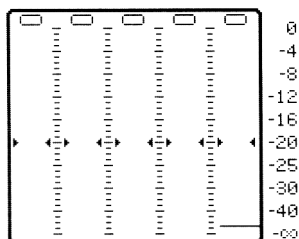
Key	Key designation	Description
F1	INT SG MD	For selecting the internal audio test signal. TONE: Reference level sinusoidal waves are output. SILENCE: A signal tone is not output. (Mute signals are output.)
F2–F5	—	
F6	PEAK HOLD For setting the peak hold.	For holding the peak recording and playback levels on the display. ON: Peak level is held. OFF: Peak level is not held.
F7	SCALE For switching the level meter scale.	For switching the scale of the audio level meter on display to standard scale or fine scale. FINE: Scale in 0.2 dB increments. (–24dB to –15dB) FULL: Standard scale (–∞ to –0dB) Refer to “Switching the audio level meter scale” (on this page).
F8	EXIT	Returns the VTR to the AUDIO IN menu screen.
F9	DATA ADV*1	0–1 Fr (in increments of 1/10th of a frame): The amount by which the data is to be advanced when the digital audio input/output format is in the data mode can be set in increments of 1/10th of a frame. (When “0” is set, the amount is set to the default setting inside the VTR.)
F10	STYLE* For setting the digital audio input/output data format.	This menu item can be set by pressing the F10 key together with the F key. PCM: The format is set to the regular PCM audio mode. DATA: The format is set to the data mode (compressed audio: Dolby-E*2).
F11–F13	—	

*1The data mode is operational only in the 4-channel audio versions of the 1080/59.94i and 720/59.94p system formats.

The data advance amount and data style can be set on both the AUDIO IN SETUP menu and AUDIO OUT SETUP menu. If the setting is updated on one menu, it will be updated on the other menu as well. Furthermore, these settings cannot be performed on a channel by channel basis.

*2“Dolby” and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

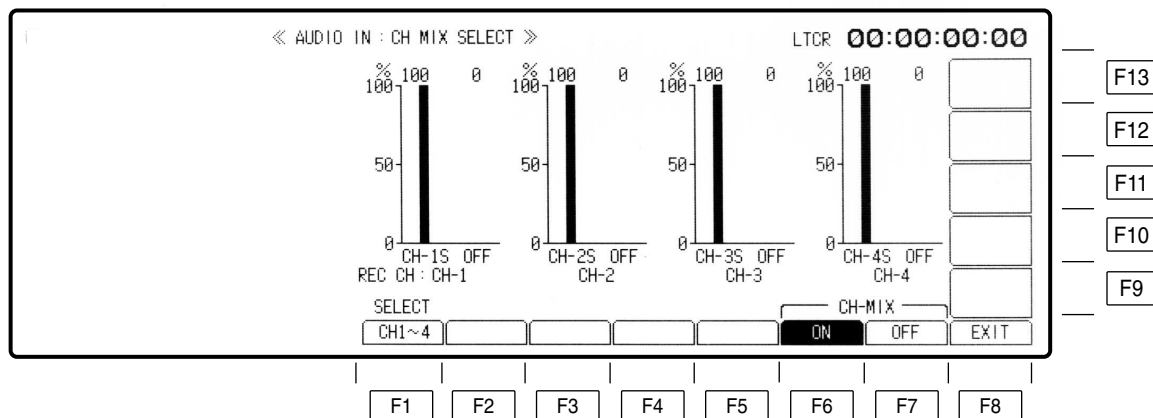
□ Switching the audio level meter scale



- If the audio level is adjusted below –24 dB in the FINE mode, the ↓ mark is displayed; if it is adjusted above –15 dB, the ↑ mark is displayed.

AUDIO IN CH-MIX SELECT menu

This menu is displayed by pressing the following keys: **AUDIO IN** → **F9**



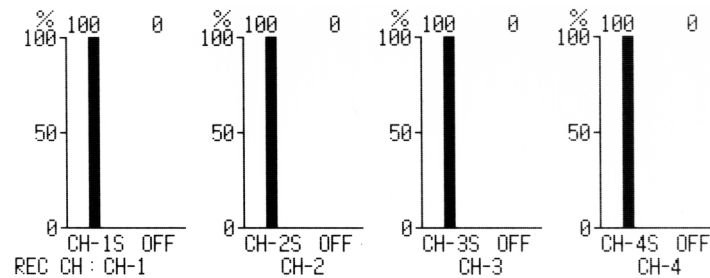
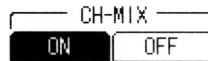
Key	Key designation	Description
F1	SELECT	Selects the channels whose signals are to be mixed. CH1-CH4: The signals from CH1 through CH4 are selected for mixing. CH5-CH8*: The signals from CH5 through CH8 are selected for mixing.
F2-F5	—	
F6	CH-MIX (ON) For mixing the input signals with the signals played back simultaneously and recording them.	The signals which have been input to the digital audio channels and any two channels of the playback signals on the tape are selected and mixed at the desired ratio. ON: "ON" is selected by pressing the F6 key, and the signals can be mixed. OFF: "OFF" is selected by pressing the F7 key, and the channel signals cannot be mixed.
F7	CH-MIX (OFF) For prohibiting the mixing of the input signals and signals played back simultaneously and their recording.	Even when OFF has been selected, the mixing settings set by the F6 key will still be retained.
F8	EXIT	Returns the VTR to the AUDIO IN menu screen.
F9-F13	—	

*This setting is not displayed when the digital sound is in the 4-channel format.

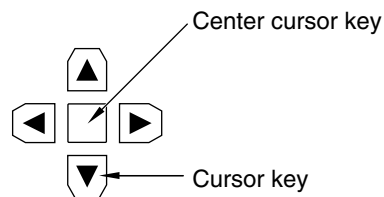
AUDIO IN CH-MIX SELECT menu

□ Mix-and-record

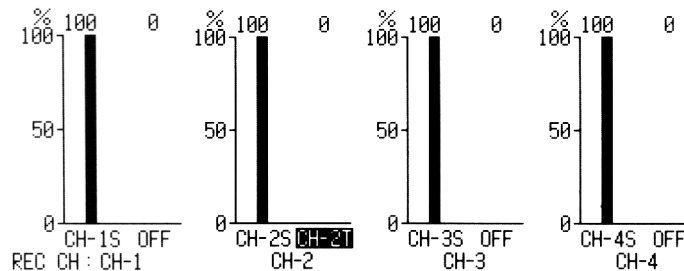
- (1) Press the F6 (CH-MIX) key to set it ON.
The mixing graph display now appears.



- (2) Press the center cursor key to display the cursor.



- (3) Use the cursor keys to move the cursor to the channel in which the sound is to be mixed.



- (4) Press the center cursor key to select the signals to be mixed.

The desired signals can be set on a channel by channel basis.

The following signals can be set:

CH-1S CH-2S CH-3S CH-4S CH-5S CH-6S CH-7S CH-8S (input signals of each channel)

CH-1T CH-2T CH-3T CH-4T CH-5T CH-6T CH-7T CH-8T (play-back signals of each channel)

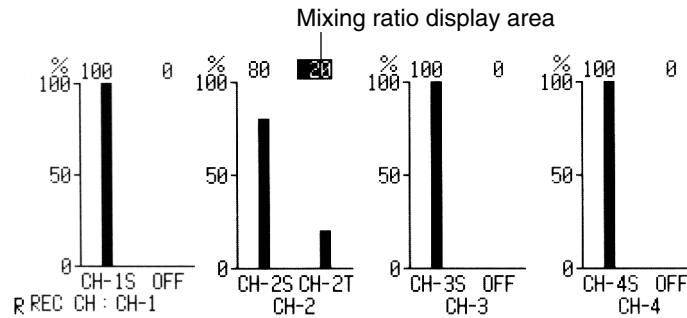
OFF (no mixing)

•The same signal cannot be selected for one channel.

AUDIO IN CH-MIX SELECT menu

□ Mix-and-record (continued)

- (5) Move the cursor to the mixing ratio display area, and turn the ADJUST control to set the ratio at which the signals are to be mixed (in 1% increments).



<Notes>

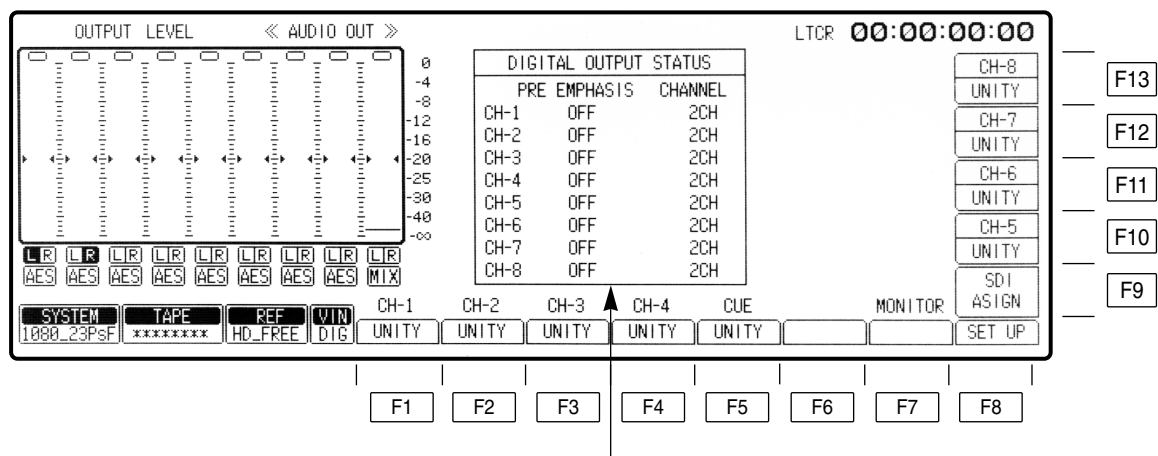
- When the PLAY button is pressed after the CH-MIX mode has been set, the F6 (CH-MIX) key keeps blinking. The regular playback sound is output at this time.
- When the F6 key is pressed while it is blinking, the CH-MIX sound is output. To adjust the ratio while monitoring the actual mixing sound, proceed in this status.
- To set the CH-MIX mode function to OFF, press the F7 (CH-MIX) key.

Sound output based on VTR's mode and F6, F7 key statuses

VTR mode Key status	F6 key is lighted	F6 key is blinking	F7 key is lighted (OFF)
EE/STOP	CH-MIX sound	—	EE/TAPE
PLAY (EDIT, NORMAL)	CH-MIX sound	Playback sound	Playback sound
REC	CH-MIX sound	—	EE/TAPE
JOG/VAR/SHTL	—	Playback sound	Playback sound

AUDIO OUT menu

This menu is displayed by pressing the following key: **AUDIO OUT**



The digital audio input statuses are displayed here.

PRE EMPHASIS ON: Pre-emphasis is applied to the input signals.
OFF: Regular signals with no pre-emphasis are supplied.

AUDIO OUT menu

Key	Key designation	Description
F1	CH-1 For adjusting the audio CH1 playback level.	UNITY: Input level is fixed at UNITY value. VAR: Input level can be varied with ADJUST control. ●For switchover, press the UNITY/VAR button.
F2	CH-2 For adjusting the audio CH2 playback level.	
F3	CH-3 For adjusting the audio CH3 playback level.	
F4	CH-4 For adjusting the audio CH4 playback level.	
F5	CUE For adjusting the cue audio playback level.	
F6	—	
F7	MONITOR	Transfers the VTR to the AUDIO OUT MONITOR menu screen.
F8	SET UP	Transfers the VTR to the AUDIO OUT SET UP menu screen.
F9	SDI ASIGN	Transfers the VTR to the AUDIO OUT SDI ASIGN menu screen.
F10	CH-5 For adjusting the audio CH5 playback level.	UNITY: Input level is fixed at UNITY value. VAR: Input level can be varied with ADJUST control. ●For switchover, press the UNITY/VAR button.
F11	CH-6 For adjusting the audio CH6 playback level.	
F12	CH-7 For adjusting the audio CH7 playback level.	
F13	CH-8 For adjusting the audio CH8 playback level.	

AUDIO OUT MONITOR menu

This menu is displayed by pressing the following keys: **AUDIO OUT** → **F7**

« AUDIO OUT : MONITOR »

LTOR 00:00:00:00

CUE OUT SELECT

CH1CH2CH3CH4

CH5CH6CH7CH8

MONI MIX

L CH

CH1CH2CH3CH4

CH5CH6CH7CH8

R CH

CH1CH2CH3CH4

CH5CH6CH7CH8

MONI AUTO

MODE

L CH

R CH

SHTLONON

A. MONI

VAR

EXIT

MODE

AVERAGE

L CH

OFF

R CH

OFF

F1

F2

F3

F4

F5

F6

F7

F8

F9

F10

F11

F12

F13

AUDIO OUT MONITOR menu

Key	Key designation	Description
F1	MODE For selecting the mode.	Selects the VTR mode in which the monitor output signals are automatically switched to the cue signals. SHTL: Automatically outputs the playback signals of the cue channel in the SHTL, FF or REW mode. Outputs the signals of the channel selected by the L and R buttons in any other mode. VAR/SHTL: Automatically outputs the playback signals of the cue channel in the SHTL, FF, REW, JOG or VAR mode.
F2	L CH	Outputs the signals of the channel selected by the L and R buttons in any other mode. Selects whether the auto mode is to be activated for the left channel. OFF: Always outputs the channel signals selected by the L button. ON: Automatically outputs the cue signals in accordance with the mode selected by F1.
F3	R CH	Selects whether the auto mode is to be activated for the right channel. OFF: Always outputs the channel signals selected by the R button. ON: Automatically outputs the cue signals in accordance with the mode selected by F1.
F4–F6	—	
F7	A.MONI For selecting the audio monitor output level adjustment.	Selects whether to adjust the audio monitor output level using the headphones volume control on the front panel. UNITY: The audio monitor output level is forcibly fixed at the UNITY value. VAR: The level can be adjusted using the headphones volume control.
F8	EXIT	Returns the VTR to the AUDIO OUT menu screen.
F9–F10	—	
F11 F12	R CH L CH	For setting whether the signals from the left and right channels are to be mixed and output to the MONITOR connector. OFF: The signals are not mixed. ON: The signals are mixed.
F13	MODE	For selecting the way in which the channel signals output to the MONITOR connector are to be mixed. ADD: Simple addition AVERAGE: Simple averaging

CUE OUT SELECT

This is used to select the main line CH1 through CH4 (8) signals serving as the CUE output. When the center cursor key is pressed, CUE OUT SELECT is highlighted, enabling the setting to be selected. (If MONITOR MIX is highlighted, press the F key and a cursor key (◀ or ▶) together to enable this setting to be selected.)

Select the channel using the cursor keys (◀, ▶, ▲ and ▼), and press the center cursor key to turn the selection ON or OFF.

MONITOR MIX

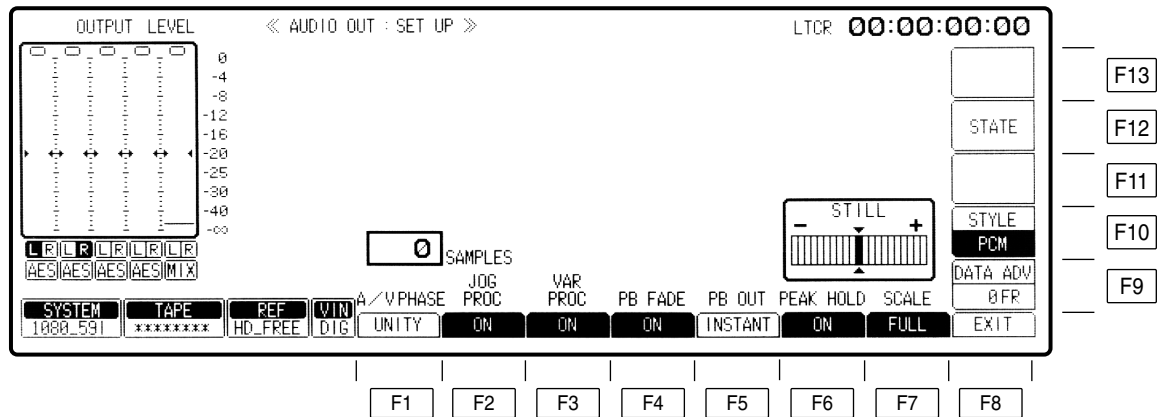
This is used to select the mixed left and right channel signals to be output to the MONITOR connector. As the selection condition, not more than two channels (maximum 4 channels) among CH1 through CH4 and among CH5 through CH8 can be set to serve as the left or right channel. When the center cursor key is pressed, MONITOR MIX is highlighted, enabling the setting to be selected. (If CUE OUT SELECT is highlighted, press the F key and a cursor key (◀ or ▶) together to enable this setting to be selected.)

Select the channel using the cursor keys (◀, ▶, ▲ and ▼), and press the center cursor key to turn the selection ON or OFF.

(This setting is for selecting the channels; whether or not the selected signals are to be actually set is performed by switching between the F11 and F12 keys.)

AUDIO OUT SET UP menu

This menu is displayed by pressing the following keys: **AUDIO OUT** → **F8**
 OR
SET UP → **F7**



AUDIO OUT SET UP menu

Key	Key designation	Description
F1	A/V PHASE* For adjusting the audio output phase in relation to the video phase.	When digital signals output from the unit are processed by an external unit, a phase difference between video and audio signals can be produced. Such differences can be eliminated by adjusting the audio and video signal phases. ●Refer to “Adjusting the audio output signals in relation to the video signals.”
F2	JOG PROC For setting the digital process ON/OFF.	Selects the digital processing in the JOG mode. ON: Performs PCM audio digital processing. OFF: No PCM audio digital processing.
F3	VAR PROC For setting the digital process ON/OFF.	Selects the digital processing in the VAR mode. ON: Performs PCM audio digital processing. OFF: No PCM audio digital processing.
F4	PB FADE Playback fade.	Uses V-fade to instantaneously eliminate the audio noise occurring during playback at the cut edit points. ON: Activates the playback V-fade processing at all cut edit points on the tape. OFF: No playback V-fade processing.
F5	PB OUT Selects the audio output when playback is started.	When shifting from stop to play status, some time elapses before the audio signals are output. This time lapse can be shortened. INSTANT: Shortens the time lapse before audio is output. The first part of the audio signal to be output, however, produces an incomplete sound. Use for transmission purposes is not recommended. Convenient when used for search operations, for instance, because the audio signals can be checked quickly. DELAYED: Outputs the audio signals as soon as they are complete.
F6	PEAK HOLD For setting the peak hold of the level meter.	For holding the peak recording and playback levels. ON: Peak level is held. OFF: Peak level is not held.
F7	SCALE For switching the level meter scale.	For switching the scale of the audio level meter on display to standard scale or fine scale. FINE: Scale in 0.2 dB increments. (–24dB to –15dB) FULL: Standard scale. (–∞ to –0dB) Refer to “Switching the level meter scale” in the AUDIO IN SET UP menu section (on page 54).
F8	EXIT	Returns the VTR to the AUDIO OUT menu screen.
F9	DATA ADV*	0–1 Fr (in increments of 1/10th of a frame): The amount by which the data is to be advanced when the digital audio input/output format is in the data mode is adjusted. (When “0” is set, the amount is set to the default setting inside the VTR.)

*This item does not function when the E-E through mode (refer to the description of the F2 key on the AUDIO OUT SET UP STATE menu) has been set.

AUDIO OUT SET UP menu

Key	Key designation	Description
F10	STYLE*	This menu item can be set by pressing the F10 key together with the F key. PCM: The style is set to the normal PCM audio mode. DATA: The style is set to the data mode (compressed audio: Dolby-E).
F11	—	
F12	STATE	Transfers the VTR to the AUDIO OUT SET UP STATE menu screen. (See page 66.)
F13	—	

*The data mode is operational only in the 4-channel audio versions of the 1080/59.94i and 720/59.94p system formats.

The items on this menu can also be set on the AUDIO IN SETUP menu. If the setting is updated on one menu, it will be updated on the other menu as well. Furthermore, these settings cannot be performed on a channel by channel basis.

AUDIO OUT SET UP menu

□ Adjusting the audio output signals in relation to the video signals

- (1) Press the F1 (A/V PHASE) key to put the display in reverse video.

A/V PHASE
UNITY

- (2) Adjust the phase difference using the ADJUST control.
When the ADJUST control is turned, the display changes to VAR.
(The adjustment can now be varied in 1-sample increments from +16 to –96 samples.)

ADJUST

+4 SAMPLES

A/V PHASE
VAR

- (3) Upon completion of the adjustment, press the F1 (A/V PHASE) key.

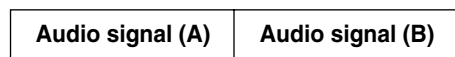
- When the UNITY/VAR key is pressed during the adjustment, the UNITY mode is restored.
When the key is pressed again, the mode reverts to VAR.

UNITY
/VAR

□ Fade function

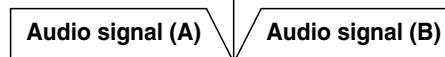
During editing, the cut-edited data is recorded automatically; during playback, this data is detected and the section concerned is V-faded.

Playback V-fade function OFF



↑
Noise appears at the joins in the editing.

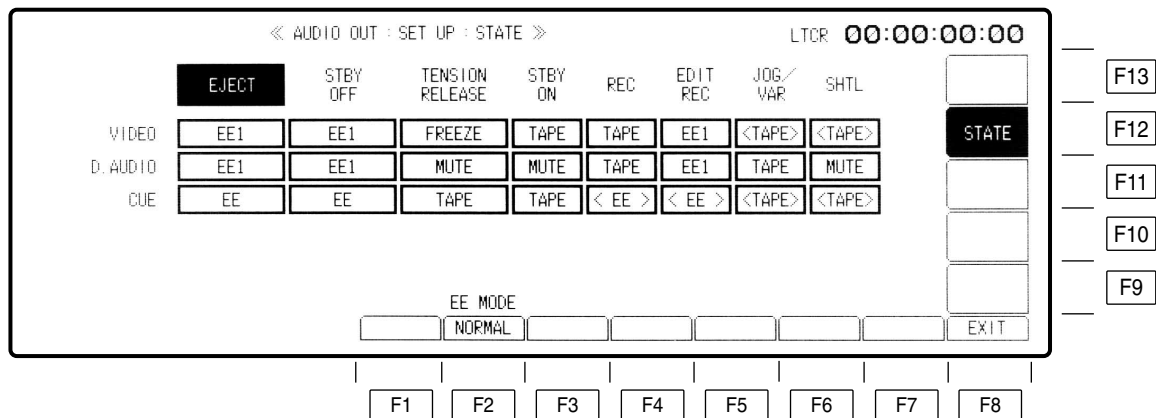
Playback V-fade function ON



↑
V-fading is performed for an instant to eliminate the noise.

AUDIO OUT SET UP STATE menu

This menu is displayed by pressing the following keys: **AUDIO OUT** → **F8** → **F12**



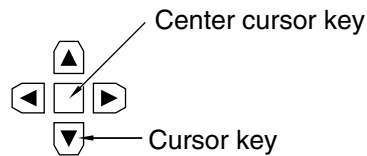
Key	Key designation	Description
F1	—	
F2	EE_MODE	NORMAL: The standard mode is established (E-E through mode is turned OFF). THROUGH: The E-E through mode (AV minimum delay mode) is established. *A discrepancy occurs between the video (audio) output and time code output in the E-E through mode.
F3–F7	—	
F8	EXIT	Transfers the VTR to the AUDIO OUT SET UP menu screen.
F9–F13	—	

VIDEO OUT SET UP STATE menu

□ Selecting the TAPE/EE output signals

The video, audio and cue signals which are output during the VTR's operation are switched on this menu to TAPE or EE signals.

- (1) Press the center cursor key to display the cursor.



- (2) Move the cursor to the desired position using the cursor keys.

- The cursor will not move to places which cannot be set.

	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	EE1	EE1	FREEZE	TAPE	TAPE	EE1	<TAPE>	<TAPE>
D. AUDIO	EE1	EE1	MUTE	MUTE	TAPE	EE1	TAPE	MUTE
CUE	EE	EE	TAPE	TAPE	< EE >	< EE >	<TAPE>	<TAPE>

- (3) Press the center cursor key to select TAPE or EE.

Refer to the following table for the types of setting options.

Mode CH	EJECT	STBY OFF	TENSION RELEASE	STBY ON	REC	EDIT REC	JOG/ VAR	SHTL
VIDEO	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	FREEZE BLACK GRAY FREE NOISE <u>EE1</u> EE2	<u>FREEZE</u> BLACK GRAY FREE NOISE EE1 EE2	<u>TAPE</u> EE1 EE2	<u>TAPE</u> EE1 EE2	TAPE <u>EE1</u>	TAPE	TAPE
D.AUDIO	MUTE <u>EE1</u> EE2	MUTE <u>EE1</u> EE2	<u>MUTE</u> EE1 EE2	<u>MUTE</u> EE1 EE2	TAPE EE1 EE2	TAPE <u>EE1</u>	TAPE MUTE	TAPE <u>MUTE</u>
CUE	TAPE <u>EE</u>	TAPE <u>EE</u>	<u>TAPE</u> EE	<u>TAPE</u> EE	EE	EE	TAPE	TAPE

(Underline denotes the factory setting mode.)

- When a setting is to be established during head selection using the TEST menu or during editing, the setting applying to the operation concerned takes precedence over the setting selected using the VIDEO OUT SET UP STATE menu.
- When TAPE/EE has been set by F1 (OUTPUT) on the HOME menu, the HOME menu setting takes precedence.

AUDIO OUT SDI ASSIGN menu

This menu is displayed by pressing the following keys: **AUDIO OUT** → **F8** → **F12**

The screenshot displays the 'AUDIO OUT : SDI ASSIGN' menu. At the top, it shows 'OUTPUT LEVEL' with a scale from 0 to -60 and a signal level indicator. The center features a signal flow diagram with 'HD' and 'SD' inputs, and 'HD_TO_HD', 'SD_TO_HD', 'HD_TO_SD', and 'SD_TO_SD' processing blocks. On the right, there are settings for 'SD_TO_SD' (CH1~4) and 'SD_TO_HD' (CH1~4, CH5~8, OFF). The bottom section contains system information like 'SYSTEM 1080_23PsF', 'TAPE *****', 'REF HD_FREE', and 'VIN DIG'. A row of function keys (F1-F8) is at the bottom, and a vertical column of function keys (F9-F13) is on the right.

OUTPUT LEVEL **« AUDIO OUT : SDI ASSIGN »** LTCR **00:00:00:00**

0
-4
-8
-12
-16
-20
-25
-30
-40
-60

HD TO_HD SD TO_HD HD TO_SD SD TO_SD

SD_TO_SD CH1~4
CH1~4

SD_TO_HD CH1~4
CH1~4
CH5~8
OFF

HD_TO_HD CH1~4 CH5~8
CH1~4 CH5~8

HD_TO_SD CH1~4

SYSTEM 1080_23PsF TAPE ***** REF HD_FREE VIN DIG

F1 F2 F3 F4 F5 F6 F7 F8

F13
F12
F11
F10
F9

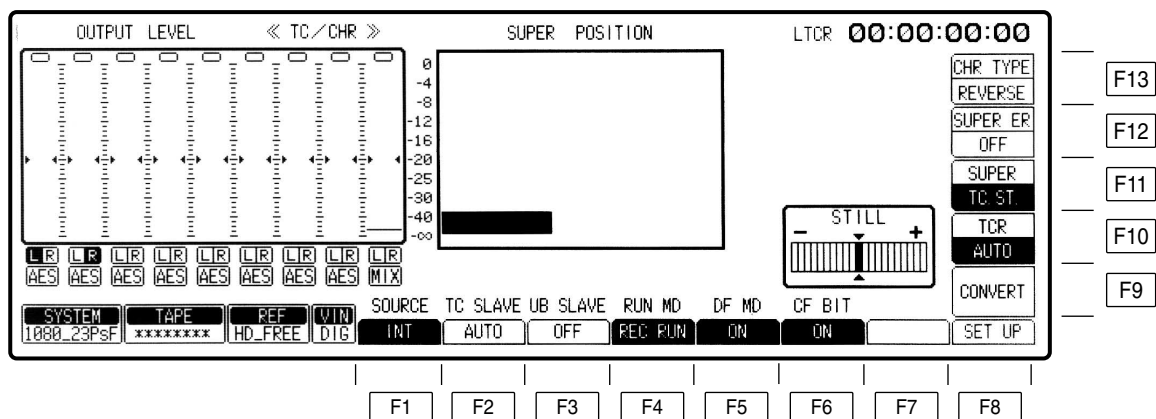
AUDIO OUT SDI ASIGN menu

Key	Key designation	Description
F1	HD_TO_HD CH1~4	Selects the channels whose signals are to be output to HD SDI embedded audio channels 1 through 4. CH1~4: The signals of CH1 through CH4 are output. CH5~8: The signals of CH5 through CH8 are output. OFF: No signals are output.
F2	HD_TO_HD CH5~8*	Selects the channels whose signals are to be output to HD SDI embedded audio channels 5 through 8. CH1~4: The signals of CH1 through CH4 are output. CH5~8: The signals of CH5 through CH8 are output. OFF: No signals are output.
F3	—	
F4	HD_TO_SD CH1~4	Selects the channels whose signals are to be output to SD SDI embedded audio channels 1 through 4. CH1~4: The signals of CH1 through CH4 are output. CH5~8: The signals of CH5 through CH8 are output. OFF: No signals are output.
F5~F7	—	
F8	EXIT	Returns the VTR to the AUDIO OUT menu screen.
F9	SD_TO_HD CH5~8*	Selects the channels whose signals are to be output to HD SDI embedded audio channels 5 through 8. CH1~4: The signals of CH1 through CH4 are output. OFF: No signals are output.
F10	SD_TO_HD CH1~4	Selects the channels whose signals are to be output to HD SDI embedded audio channels 1 through 4. CH1~4: The signals of CH1 through CH4 are output. OFF: No signals are output.
F11~12	—	
F13	SD_TO_SD CH1~4	Selects the channels whose signals are to be output to SD SDI embedded audio channels 1 through 4. CH1~4: The signals of CH1 through CH4 are output. OFF: No signals are output.

*This setting is not displayed when the digital sound is in the 4-channel format.

TC/CHR menu

This menu is displayed by pressing the following key: TC/CHR



TC/CHR menu

Key	Key designation	Description
F1	SOURCE For selecting internal/external time code signal.	INT: Built-in time code generator. EXT LTC: LTC time code from TIME CODE input connector. S LTC: LTC time code added to serial signals; not displayed when the SD mode is selected. S VTC: VTC time code added to serial signals; not displayed when the SD mode is selected. EXT VITC: VITC time code added to video signals; not displayed when the HD mode is selected.
F2	TC SLAVE For setting up time code slave lock mode.	<p>●When the F1 (SOURCE) key is at [INT], AUTO, PRESET and SALVE are displayed.</p> <p>AUTO: Generator locks at the value read out by the reader. In this case there is no time code setting. (Only during editing.) During normal recording, however, any setting of the generator can be performed.</p> <p>PRESET: Generator does not lock at the value read out by the reader. Generator can be set freely.</p> <p>SLAVE: The generator is locked to the reader's readout value. In this case, the time code cannot be set.</p> <hr/> <p>●When the F1 (SOURCE) key is at [TEXT LTC], SALVE and DIRECT are displayed.</p> <p>SLAVE: Generator locks to external LTC time code. (When there is no external input, E-TC time data blinks.)</p> <p>DIRECT: External LTC time code is recorded as is. (When there is no external input, E-TC: * *: * *: * *: * *: * are displayed.)</p> <hr/> <p>●When the F1 key is at [S VITC], [S LTC] or [EXT VITC], this key is not displayed. In this case, the generator value typically locks to external VITC or LTC time code.</p>
F3	UB SLAVE User bit lock.	<p>ON: User bit locks to user bit value read by reader (TCR) or to external user bit value, and cannot be set.</p> <p>OFF: Generator does not lock to value read out by reader. User bit value can be set freely.</p>
F4	RUN MD Time code progress.	<p>REC RUN: Runs the TC only while recording is in progress.</p> <p>FREE RUN: Runs the TC all the time in the same way as a clock.</p>
F5	DF MD* For selecting drop or non-drop frame.	<p>Valid only when the F1 (SOURCE) key selects [INT].</p> <p>ON: Drop frame mode is set.</p> <p>OFF: Non-drop frame mode is set.</p> <p>●When [EXT LTC], [S VITC] or [S LTC] is selected in the F1 key, the VTR conforms to drop/non-drop frame mode of external time code.</p>

*This is not displayed when the 1080/23p, 1080/24p or 1080/50i system format has been selected.

TC/CHR menu

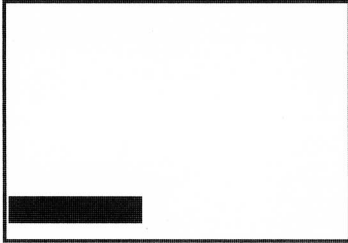
Key	Key designation	Description
F6	CF BIT* ¹ For selecting the color frame bit ON/OFF during recording.	ON: CF BIT is recorded. OFF: CF BIT is not recorded. ●When [EXT LTC], [S VITC] or [S LTC] is selected in the F1 key, the VTR conforms to the external color frame bit.
F7	—	
F8	SETUP	Transfers the VTR to the TC/CHR SET UP menu screen.
F9	CONVERT* ²	Transfers the VTR to the TC/CHR CONVERT menu screen.
F10	TCR For selecting time code read out mode.	LTC: LTC is read out all the time. AUTO: At low speed, VITC is read preferentially. When it is not read, then LTC is read. VITC: VITC is read out all the time. ●In either setting, when the time code cannot be read, values corrected by control signal are read out. (Interpolation mode is assumed and [INTRP] is displayed on the HOME menu.)
F11	SUPER For setting superimpose.	TC: Only the TC is superimposed. TC.ST: The TC and VTR status are superimposed. TC.UB: The TC and user bits are superimposed. TC.ST.RT: The TC, VTR status and remaining tape time are superimposed. OFF: No superimposed display.
F12	SUPER ERR	ON: The warning displays are superimposed. OFF: The warning displays are not superimposed.
F13	CHR TYPE For selecting type of character to be superimposed.	REVERSE: Characters appear against a black background. INTENSE: Characters are displayed more intensely.

*¹This is displayed only when the 480/59.94i system format has been selected.

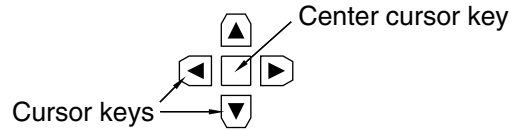
*²This is displayed only when the 1080/23p, 1080/24p or 1080/50i system format has been selected.

TC/CHR menu

□ Changing the superimposing position



(1) Move the position using the cursor keys.



- When a cursor key is held down, the cursor will move more quickly.
- When the center cursor key is pressed, the superimposing returns to its initial position.

□ Time code displays and VTR's operating modes

Display the time codes and VTR's operating modes as required.

Time code displays

CTL1: Control signal 1

CTL2: Control signal 2

LTCR: LTC time code readout value

LUBR: LTC user bit readout value

VTOR: VITC time code readout value

VUBR: VITC user bit readout value

TCG: Value generated by time code generator

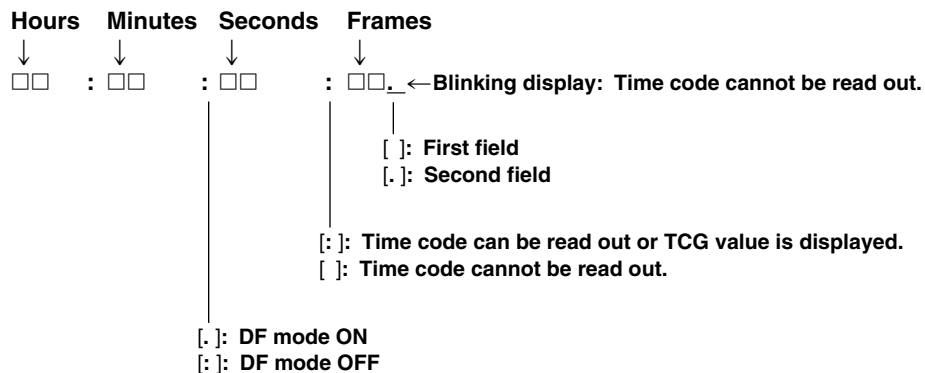
LUBG: Value of LTC user bit generated

VUBG: Value of VITC user bit generated

EXTC: External time code value

EXUB: External user bit value

- The colon (":") between the seconds and frames denotes the readout mode of the time code reader.



TC/CHR menu

□ Time code displays and VTR's operating modes (continued)

VTR's operating modes

STOP	F.FWD
PREVIEW	REW
REVIEW	EDIT PLAY (edit playback)
PREROLL	EDIT REC (edit recording)
AUTO EDIT (automatic editing)	CUE UP
JOG	STANDBY OFF
VAR	EJECT
SHTL	DMC PREVIEW
REC	DMC EDIT
REC	
(display blinks during Pre-CTL operation)	OUT PREVIEW
PLAY	DMC SAMPLE
	(variable memory speed sampling underway)
P PLY (programmed playback)	DMC PLAY (variable memory playback underway)
TSO (TAPE SPEED OVERRIDE)	AUTO OFF

- In the shuttle/variable mode and CUE UP and PREROLL modes, the tape travel direction is indicated as "+" or "-", and the tape speed is displayed as an integer.
- In the jog mode, the tape travel is indicated by "<" when it is moving in the forward direction, by "*" when it has stopped, and by ">" when it is moving in the reverse direction.
- In the programmed playback and TSO modes, "+" or "-" is used to indicate the deviation direction, and the deviation data is displayed as a percentage.

□ Error information displays

Press the F12 (SUPER ER) key to set it ON.

The error information will now be displayed.

FAN STOP (fan stopped)	HD REF ERROR (no HD reference signal input)
ERASE ERROR (erase current stopped)	SD REF ERROR (no SD reference signal input)
COMP.CPU ERROR	HD SDI ERROR (HD SDI signal error)
(error in communication with CPU)	
CONCEAL SW OFF	SD SDI ERROR (SD SDI signal error)
(conceal SW at "OFF" position)	
ECC SW OFF (ECC SW at "OFF" position)	FREQ UNMATCH
	(frequency settings fail to match)
SERVO UNLOCK (no servo lock)	VIDEO ERROR (video system error)
CTL NOT DET. (no CTL signal detection)	PCM ERROR (PCM signal system error)
LOW RF (drop in RF level during recording)	RS-422 ERROR (RS-422 system error)
CONCEAL V/A (video/audio error corrected)	RS-232C ERROR (RS-232C system error)
CONCEAL A (audio error corrected)	VA-CONT ERROR (VA controller error)
CONCEAL V (video error corrected)	TC ERROR (time code error occurred)
AUDIO MUTE (audio output muted)	CARD LOW BATT
	(low charge in front IC card battery)
HIGH ERROR (inner error value too high)	SYSCON ERROR
	(system control system error occurred)
CTL HEAD CLOG (CTL head clogged)	MECHA ERROR
	(mechanical system error occurred)
LTC HEAD CLOG (LTC head clogged)	SERVO ERROR
	(reel, drum or capstan error occurred)
OPT ERROR (optimization system error)	SYSTEM ERROR (other error)

TC/CHR menu

Table of user bit settings

F1 (SOURCE)	F2 (TC SLAVE)	F3 (UB SLAVE)	F10 (TCR)	LUBG mode	VUBG mode
INT (internal) TC	—	ON	LTC	REGEN	INT UB
			AUTO		REGEN
			VITC	INT UB	
		OFF	LTC	PRESET	INT UB
			AUTO		PRESET
			VITC	INT UB	
S LTC S VITC EXT LTC	— SLAVE	ON	LTC	EXT REGEN	INT UB
			AUTO		EXT REGEN
			VITC	INT UB	
		OFF	LTC	PRESET	INT UB
			AUTO		PRESET
			VITC	INT UB	
EXT LTC	DIRECT	ON	LTC	DIRECT	INT UB
			AUTO		EXT REGEN
			VITC		
		OFF	LTC		INT UB
			AUDIO		
			VITC		PRESET*

*The user bit can be set in all modes except for recording.

- DIRECT:** The external LTC input signal is recorded directly and output. It is not synchronized with the internal reference signal.
- REGEN:** The user bit is slave-locked to the value read out on the tape. The user bit cannot be set.
- EXT REGEN:** The user bit is slave-locked to the externally input VITC or LTC. The user bit cannot be set.
- PRESET:** The user bit is not locked to the value read out on the tape or external input. The user bit can be set.
- INT UB:** In this mode, the previous user bit is retained, and neither the REGEN nor PRESET functions can be implemented.
To set the user bit again, use the F1 (SOURCE), F2 (TC SLAVE) or F3 (UB SLAVE) key to select one of the three modes above.